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PART 4—PENSION FUNDING, INVESTMENT, AND ADMINISTRATIVE ISSUES

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PENSION FUNDING, INVESTMENT, AND ADMINISTRATIVE ISSUES

STATEMENT OF DALLAS L. SALISBURY, MODERATOR, PRESIDENT OF EMPLOYEE BENEFIT RESEARCH INSTITUTE

(The Forum met at 9:30 a.m., Wednesday, May 30, 1984, in room SD-106, Dirksen Senate Office Building.)

Mr. SALISBURY. Good morning.

In spite of the weather, and the delays it is causing some people, I think we will convene. We did get RSVP's from about twice as many people as have been able to make it through the monsoon season here in Washington. I am Dallas Salisbury, President of the Employee Benefit Research Institute. I will be moderating today.

It is a pleasure to have Senator John Warner with us this morning to open the meeting.

Senator Warner.

STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE STATE OF VIRGINIA

Senator WARNER. Good morning, ladies and gentlemen.

I arrived here shortly after 9:15, and I agree that the weather is a little bit of a deterrent.

You always have to be careful when Senators are given the opportunity to get up and speak. An old Senator once said, "Just get up, start talking, and eventually, you will think of something to say."

I sat down last night and penned a few remarks, because this is an important meeting to me, just as it is to many, many generations of future Government employees. On behalf of the hosts, Senator Stevens and Senator Bingaman, allow me to welcome you to this fourth Federal Pension Forum sponsored by the Civil Service, Post Office, and General Services Subcommittee of the Committee on Governmental Affairs.

The task that you have before you is critical to the design and concept of any new pension plan. With the well-being of the future Federal retirement program at stake, I am hopeful that you will actively participate.

Today's agenda is based on the business of operating an effective retirement program.

You will be provided with an overview of the specific issues involved; namely, pension funding, investment policy of pension assets, and effective pension management and administration. Fol-

lowing this discussion, each area will be further defined to examine the different responsibilities in some detail.

We all owe a special thanks to the distinguished members of our panel this morning who have kindly consented to provide their special expertise in these matters. It is critical that we draw the best information possible from Federal Government employees and the private sector to both augment and, indeed, complement the knowledge of Congress and the Office of Personnel Management on pension planning.

I believe that current Federal workers and retirees have placed their faith in the work of these forums and that they have every reason to expect the best results of this effort. Critical, as well, is the obligation we have to the American taxpayer, who must fund the major portion of the Federal retirement program. American citizens should note that a portion of their tax obligation goes to administer the thousands of Government services in which all Americans in some way participate.

We therefore have a special obligation to all parties concerned. The design of the Federal retirement program for new Federal employees must be cost-effective for the program sponsors and beneficial to the best of our ability for the program participants. Pension investment and competent management will be key components in effectively administering the new program, and I congratulate all of you on your interest.

I would like to again express my gratitude to our hosts for their kind invitation to initiate today's proceedings.

Just a personal comment on my behalf: In 1943, I got my first Government job. It was a mail carrier. In those days, the war was on, and they took young people. Then when I came out of the Navy in 1946, I got my second Government job with the Fire Service as a firefighter. I have had 16 different positions in the Federal service, the last being Secretary of the Navy and Under Secretary for over 5 years, so I have seen this Government system from some of the bottom posts to some of the top posts.

I wouldn't be in the U.S. Senate today had it not been for many, many fellow Government employees, supervisors, bosses and others who reached down to help give me a little inspiration when I needed it. I feel a tremendous trusteeship toward Federal employees for what previous employees did for me, and now it's my responsibility to do the same for present and future generations of Government employees.

So we entrust to you a heavy responsibility, and I am of the opinion that Congress will heed your advice and that the future legislation will be shaped largely as a result of the expertise that you build here in today's session, previous sessions, and in future sessions.

So good luck. The Federal service is, I think, the finest to be found anywhere in the world and the retirement program is an integral part. Many, many Federal employees that I have observed could have better opportunities in the private sector, but they forwent those opportunities out of a sense of obligation to their country. The least we can do for them is to provide for that retirement program which they justly deserve and have earned.

Thank you.

Mr. SALISBURY. As the Senator noted, today is the fourth in a series of five policy forums being sponsored by the committee. For the first forum, a committee print has already been published. The forum focused on the broad subject of retirement income programs. The second forum, which dealt with issues of plan design, what is common practice in the private sector and how that relates to the current design of Federal retirement programs, is now at the printers and will be available fairly soon.

The third forum dealt with the subject of integration of Social Security with pension programs. The transcript is being edited from that meeting, and that will also be available in coming weeks.

As a follow-on to those important discussions of what is being done, what are the design issues, comes what, in this discussion, seems to be the core of the question of comparability and of what can be supported in the way of design: the question of how do you pay for it, what are the implications of paying in different ways, what are the alternative funding methods that are used, and issues related to the security of those benefits in terms of assets.

For example, do you change from current policy, where pension reserves of the Federal retirement system are exclusively invested with the Government and basically used to finance the debt of the Government, to a balanced investment in the private sector media. A third set of issues relate to the administration of the retirement programs. The discussions today focus on the complexity that comes with many of the decisions that might otherwise seem so simple. Is it really possible and efficient to do a particular thing? Is it the right policy decision?

As in the past forums, we will be here as long as your discussion and your questions engage us.

When you do make your comments, please state your name and your affiliation.

This is the one item that you have heard every time you have ever gone into any facility since your first bout with kindergarden. As we all know very well, the natural human tendency is to congregate at the back of the room. There are lots of seats up front, and with the slides and the overheads, we can assure you that even though the speakers have gone to great efforts to make them readable and clear, you are bound to be able to see them more easily if you move right up to the front. At the risk of insult, Ray, there are some wonderful seats up here.

Our first presentation this morning is by Professor Irwin Tepper. Irwin has taught for many years in the finance area, at the Harvard Business School, at MIT. He has published very, very broadly on subjects related to pension investment. He is currently President of Irwin Tepper Associates. The firm now does financial analyses of employee benefit programs, analyses for employers of to what degree they should be funding.

Irwin.

I. AN OVERVIEW OF PENSION FUNDING, INVESTMENT AND ADMINISTRATIVE ISSUES

(Presented by Irwin Tepper, President, Irwin Tepper Associates)

Mr. TEPPER. Thank you, Dallas.

Already we have had a technical problem. Dallas, I just turned on the machine, and it didn't happen.

Can you folks see that?

Mr. SALISBURY. That is the difference between the technical expertise of a professor and an actuary.

Mr. TEPPER. I push a button, and theoretically, the machine should have gone on.

In all of these talks, I do like to be somewhat informal. I am going to try to be not as anecdotal as usual for those of you who have heard me speak at dinner and the like.

In this paper, what I try to do is cover a very broad range of financial policies relating to pension funds. For the most part, I deal with the private sector, although it would be a serious omission not to deal with Social Security. So I do make some reference in the paper to public retirement systems and Social Security. I try to address issues related to the plan's sponsors and the decisions that sponsor has to make in the management of the financing of pensions. I also try to deal with public policy issues surrounding all of these areas.

It is quite clear I am not going to get to say a lot about what is in the paper in the next 20, 30 minutes or so but I did manage to get the paper here in time for you to get a copy of it. If you will notice, on this first slide, the plan design area is an integral part of the financial policy area of pensions. It is hard to think about plan design issues without bumping into funding and investment considerations.

For example, the more obvious ones are, if you design a defined contribution plan, there isn't much room for discretion of funding. The funding decision is done. The plan is always fully funded, and whatever the specification is in the plan document that outlines and defines the contributions, those are the contributions that will be made. So the plan design issues have a very big interrelationship with funding questions.

Similarly, the plan design area bumps its nose up into investment issues.

Just continue that analogy with me for a little bit from defined benefit to defined contribution. In the defined contribution plan the sponsor is not bearing the risk in the benefit program; it is the plan participants, and the plan participants by and large are a pretty diverse group, different by age, wealth, circumstance, risk preferences. Thus investment policy of a pension fund ought to somehow be different for a defined benefit versus a defined contri-

bution plan. Indeed, you will find in probably the majority of the defined contribution plans that the plan participants do have some options in which they can elect their own investment posture. Those are just two areas in which the plan design, from the financial standpoint, bumps into the two other areas.

I am going to talk about a few others later on. I want to say that it is terribly difficult to separate discussions in policy issues in any one of these areas from the other two.

In the paper, what I do after a brief introduction is give you a somewhat historical perspective from the standpoint of the private sector. What I try to convey is that the whole area of policy setting in the large corporations, the internalization of mechanisms for formulating funding and investment policies, is a relatively new phenomenon. You would not have found anywhere near the level of activity that exists today 15 years ago. In fact, the pension plans just weren't large enough for those corporations to spend a lot of time on. So most corporations 15, 20 years ago relied on outsiders, consultants like myself, money managers, actuaries, to make most of the decisions. That has radically changed.

A number of things, of course, have changed in the last 15 years or so. Certainly on the investment side, the market of 1973 and 1974, which, for the average pension fund, wiped out in excess of 40 percent of the plan assets, was a major stimulus to reviewing investment policy considerations. The passage of ERISA and the future sharing of responsibilities were certainly important phenomena. The burst of unanticipated inflation and its impact on the liabilities in pension funds—in addition to just a growing importance and growing magnitude of pension assets and liabilities relative to the corporate assets and liabilities—were all reasons that pushed sponsors into a position in which they could no longer ignore coming to grips with these policy issues.

With that general overview, let me move on to a couple of comments about funding policy. If you read the literature that existed for a very long time on the traditional discussions of funding, it typically compared funded systems versus pay-as-you-go programs. I don't think that this is really a very useful way of thinking about funding these days. In fact, as you look around in the private sector today and look at the various funding levels and the contribution rates relative to payroll and relative to just about any other management, you find out there is a very wide range of discretion of contribution rates out there and funded ratios.

In fact, I think most of you read the reports in the trade journals and in the Wall Street Journal that sponsors have taken a very active role in, for the most part, reducing funding levels in the last couple of years, both through changes in the methods and assumptions and through plan determinations and surplus recaptures.

I think the issue here is not whether you fund a pension program or not, but how much you fund, what targets you are shooting for, what level of funding you are shooting for. That is the policy criteria that I want to talk about in the next few moments.

Once policy is established, the way one commits a funding policy is through a selection of actuarial methods and assumptions. I think as most of you know, based on the IRS approved regulations for tax qualified funded pension plans, there is a wide range of dis-

cretion about acceptable funding methods. Beyond that there is a very wide range of discretion and selection of things like the discount rate that is used to value liabilities.

If you look at plan documents and you look at financial statements of pension plans, you will see interest rates of 4 or 5 percent. Yet today you will see interest rates in the double digits. Those relatively large changes greatly impact funding decisions. You don't even need relatively large changes in interest rate assumptions to drop pension costs by 20, 30 percent in a funded plan. The selection of method assumption is very important, and it does, within the general guidelines, give you a very wide range from which to adopt different funding levels.

That is all I really want to say about implementation, because Jim Curtis, who is the next speaker, has just an outstanding paper describing what the implications of the different choices are for costing and funding.

Finally, the last thing is the review phase. It is quite clear from the evidence we have had in the last 15 years or so that sometimes the best laid plans go awry. I think what one would like to do is to have some kind of control system on funding policy that, once it is implemented, one has some way of reviewing that policy fairly regularly to see if targets are being met, to see if the policy guidelines that were established originally continue to be relevant in the environment. While this control system and review function is a standard thing, all too often, in fact, it goes by the wayside, and we wind up with some terrible imbalances on both sides, plans winding up with big deficits and also plans winding up with big surpluses.

As I mentioned before, you find a lot of companies waking up to the fact of these new surpluses in the pension plans and using some drastic methods to recapture that surplus.

Let me now move to a shopping list of things that one might consider as relevant issues in thinking about what levels of funding a pension system should have. While most of these items are discussed in the context of funding, they are relative to the investment issues also. So think about it as a list of things to which you can add more items to consider in setting financial policies. I have a list of the first ones.

Benefit security is probably the most important one on the list. Historically, pension claims in the private sector have had a very low priority with respect to the corporate claim structure. Creditors have been paid off before beneficiaries, and to some extent, if you take a look at some of the earlier terminations, you will find out that even the stockholders got paid off before the beneficiaries. In fact, there is relatively little restriction on the distribution of dividends to stockholders or repurchase of shares of stock of companies where maybe the benefits are not so secure and, in fact, there are less assets in the plan's sponsor to be drawn upon to pay benefits.

Well, given that we have an institutional structure like that where pension liabilities aren't up there as a senior claim on the firms, funding is, in fact, the ideal way to provide security for benefits. In fact, as you go around today and talk to some sponsors and senior executives of companies, relative to pension plans and liabilities, you will find that many CEO's do feel a moral obligation to

make sure that there are enough funds in the pension plans at all times to meet at least the vested liability, if not all of the present liabilities, to the benefits. We hear a lot in the press about these companies tapping surpluses and trying to get at the plan, but I think you will find that what is not so well publicized is that the very same corporate sponsor group—at least if it is a management group that has spent a long time with the company and has long-standing employees—feels very much a moral obligation to at least provide a certain reasonable level of security.

One thing which restricts them is, and this is another example of the linkages between funding issues and plan design issues, you will often find in the private sector that sponsors who would otherwise fund more liberally than they now do often argue that a well-funded pension plan leaves the pressures from the plan participants to liberalize the benefit. That means if the plan is well funded, the sponsor can afford a higher level of benefits.

While there are some positive factors that push sponsors to fund more than beyond the acceptable level, you will very often hear sponsors argue that well-funded plans increase the pressure to improve benefits, and that is one factor that leads sponsors to fund less than they otherwise would.

On the other hand, we have had situations in the private and public sector where a gross deficiency of assets relating to the benefit promises that have been made in the pension plan has led to renegotiations of lower benefit levels. So the benefit security issue is not only just one of liabilities sitting there relatively well funded; not well funded, they have had an impact on the level of benefits that participants take down.

The next topic I talk about in the paper is the tax treatment, and for the sake of conserving time, I will not go into a lot of the issues that are raised there. From the standpoint of a private sector plan sponsor, the major tax impact, as I am sure you all know, is the sponsor gets a deduction within certain acceptable limits for the contributions that are made to the pension plan and the fact that the returns in the pension fund are not taxed.

If you think about how that works itself out and a sponsor decides to fund more now versus later, the investment opportunities in the pension fund, given that a pretax rate of return can be earned, are very, very strong, and this is probably the major pure economic factor that moves sponsors in the direction of funding more than minimal loads of funding.

On the other hand, from the public policy viewpoint, it is difficult to predict how strong the tax motivations are in the private sector, and it is hard to predict how the funding levels will change if, in fact, some of these tax provisions were removed.

The third area which I think is important is the impact of funded pensions on national savings and capital formations. We often hear about this large pool of private sector capital out there being used to modernize plant and equipment and all this capital that is really what we need to turn our situation around in this country and make us more competitive. I think that that is probably an oversimplification, and I think what that line of reasoning misses is that when a plan sponsor allocates capital to the pension fund, somehow those contributions have to be financed.

Let me give you one simple example, and the paper goes into more complicated examples.

Let's consider a sponsor who all of a sudden decides to fund a pension plan and decides that the way that funding is going to take place is he is going to issue bonds, which is probably where most of the capital comes from. Well, just think about that for a minute. The sponsor has bought some securities in the capital markets with the pension fund, or made some investments in the pension fund, put a certain amount of money into use, but at the same time has been a user of funds in the capital markets. If you think about the assets of the pension fund and the liability sitting over here on the sponsor's balance sheet, he has been both a borrower and a lender and a user and a provider of capital, and the first order effect of that is it all probably works out to zero, or close to that.

I think that when one reads the discussions about the impact of pension funding on our capital formation or national savings, one has to look to some more distributional aspects and behavioral aspects of the redistribution of flowing, that the aggregate amount that is in funded pension systems today is by no means, to my view, even close to a measure of what the net aggregate capital formation has been once we consider all the financing implications of those outlets.

The fourth area I go to under funding is the intergenerational transfers. This, of course, is the notion of future generations paying for the benefits that get promised to us here in this current generation.

I think the issues here, again, are very different in the private sector versus the public sector. We see in the private sector a growing amount of information being promoted in the financial community about pension funds, in particular, the market value of assets and the present value of accumulated benefits. In fact, most of you have probably read in just about every major financial business periodical about the Financial Accounting Standards Board preliminary views where they even want to go further and standardize more and more the reporting and disclosure of pensions.

Well, in the private sector, when that takes place, it is hard to imagine how much intergenerational transfer takes place within the pension program of a corporation. If a company doesn't fund a pension program, it is going to show a very large and unfunded liability. When the current generation of stockholders go to pass on the net worth of that firm to a future generation of stockholders, it is hard to imagine that that future generation of stockholders, if they have enough information about unfunded liabilities in the pension plan, are not going to pay a lower price for that stock, given that they are assuming a liability.

It is hard to imagine that future stockholders will pick up the liabilities that the current generation of stockholders have incurred by virtue of private sector programs.

On the other hand, in the public sector, there is not much discipline of that kind. There is no publicly traded ownership of these programs, of the sponsors that sponsor these programs. So I think the intergenerational transfer issue is much more of a real live issue in public retirement systems than it is in private systems.

The next item on the list is the recognition of pension cost. You will see in the traditional literature—I am talking about literature that talks about funded cases, pay-as-you-go systems of the early 1950's—you will see that one of the things of having a funded pension system is to have four sponsors to recognize funding. Again, recognizing the views of the Financial Accounting Standards Board, we don't really need to have sponsors make cash contributions in order to accrue expenses. From an accounting standpoint, if you want sponsors to recognize expenses, have them recognize expenses on the income statement and on the liability sheet, just like they do in every other area, and use the accrual concept. I think that while it is not likely to pass in its current form, I think you will see the accountants pretty much have their way here, that funding and expensing or recognition of pension costs will be separate items indeed; there is no reason why they have to be one and the same. It seems to me to be a very reasonable proposal that sponsors ought to measure pension expense and ought not to be, in one way, shape, or form, constrained to fund in the same mode as a recognized pension expense. But that is, in fact, a very controversial item.

The last item on my list on funding policy—and it is relatively new—is the ownership and control of assets.

As I mentioned before, many sponsors do have surpluses. There is much concern among many sponsors who have big surpluses in pension funds that in one way, shape, or form, the assets will revert to the beneficiaries and that the sponsors will not be able to apply them to corporate uses, one of which may be to fund emerging liabilities. The view of the sponsors is that the liability itself is an obligation of the company, and if the liability is a legal obligation, then excess assets must be legally owned by them. Of course, as we all know sitting here in this building, there are some public policy issues that take quite a different view of it. I think you will find that if you go out there, there is a fair amount of anxiety in the private sector about who owns excess assets of pension funds.

Let me move on in this very quick tour of financial policy to the investment side. A long time ago, meaning before the 1973–74 bear market, investment policy guidelines by and large were not very thorough. You would often read an investment policy statement that was given to money managers by pension plans which basically said, in addition to no short tails, if you can't own more than 5 percent of any one issue, our objective is to maximize the return on the fund. Indeed, we would like our managers to beat every conceivable index that we can measure them by.

The bear market in 1973–74 has drastically changed the way sponsors look at investment policy guidelines. The risks or the exposure to those kinds of losses that they took at that time have led them to be a little more reflective about the risks involved in giving managers guidelines such as maximize returns on the fund and beat the S&P 500 or whatever index one might want to use.

What we have seen since the 1973–74 bear market is a proliferation of very quantified techniques for measuring investment risk of different policies—the level of quantification aptly, as a finance person I am happy to report, that is probably getting close to a

level of quantification that fellows like Jim Curtis in the actuarial profession have had since the 1800's.

We now do have a fair amount of quantitative tools out there, helping sponsors evaluate the risk and reward ratios of alternative policy decisions.

. In the investment area, the way one implements an investment policy is to structure the management of the assets, and I will talk about that in a little while. Finally, the review process here is now more than what it used to be. It used to be looking every year or two at the performance of each manager. Did they maximize the return of the fund, yes or no. Did they beat the S&P, yes or no. The answer to the question was they either got kept on or fired.

The process now is much more protective than the performance numbers. It is an evaluation of the portfolios these managers hold. It is an evaluation of whether they are fulfilling the guidelines in terms of portfolio structure and risk exposure that they were hired to fill. Indeed, that is one of the very controversial issues today, and particularly in the bear market that we have had since June of last year. Many managers today are failing to deliver the investment portolios they were hired to deliver. I have talked to three or four managers in this area, and indeed, that is a prevailing environment in the current environment.

More and more people who have studied the problem of pension fund investments have come to the view that the asset allocation decision is really the most important decision on a long-term basis to determining what the fund's exposure is going to look like and what its return profiles an risk/reward ratio are going to look like. Most of the consulting services now that help clients deal with investment policy really focus on investment allocation decisions. I have given you a list of things in setting mixes of asset allocation of the fund. One is the issue of the asset classes.

Traditionally, most of the funded pension systems have been in domestic equities and domestic fixed-income securities, roughly evenly balanced with the corporate and fixed income. In recent years, we have seen a wave of investment in asset classes, venture capital. Indeed, at the Department of Labor, there have been some initiatives to remove some of the implied constraints on pension fund investment in certain areas which they might otherwise have had.

The selection of the asset classes is a very important one, and they have very important ramifications for the risks that one takes in the pension program and its ability to absorb losses.

Next, after developing a list of asset classes that one might potentially consider investing in, one has to develop assumptions about these asset classes. Here there is considerable controversy about how to proceed. We have data bases from the famous midwestern university with a lot of modeling on data on returns on various asset classes going back 50 or 60 years. From that, you can get a program of the risk and rewards in different asset classes. In today's environment, it seems like the economic structure has changed somewhat and one has to worry about whether extrapolating the past is the most reasonable way to proceed in developing some assumptions about the risk/reward ratios of different investment programs.

In fact, most sponsors who have engaged in this kind of activity in normal planning and forecasting use a mix of both historical and forecast-based assumptions in their outlook for pensions. In the interest of time, I am going to move on and shorten my verbal discussion in some of these other areas, but there is an ample discussion of them in the paper. Once one has a set of asset classes and assumptions about what the outlook in various environments is of those asset classes, the third link on the list is to identify efficient mixes. Identify is a technical term. It means identifying asset classes that are better than others. What does "better than others" mean? Better than others means do you have a promise of achieving a given level of return at the lowest risk level you can afford to take?

Indeed, there are some quantitative computerized systems that try to identify what modern portfolio theorists call efficient asset mixes. Once those candidate efficient mixes are identified, typically, the next step is doing a projection of returns on these candidate mixes. Seeing, over time, what return the pension fund is likely to have in most likely, best and worst environments, one can link those return projections to the liabilities of the pension plan and to the funding goals of the pension plan.

After all, the reason for having these investments is to meet the liabilities that are being accrued. Typically, when sponsors look at the impact of their investment programs on the overall fundability of the plan and the liability structure of the plan and when they integrate the asset and liability consequences of those different investment programs, the bottom line is the impact of potential investment performance on the funding ratios of the plan and the contribution rates of the plan.

I think Charles Tharp is going to talk about matching assets and liabilities so that there is, in effect, no risk at all to the investment program vis-a-vis meeting a certain class of liabilities.

Finally one has to go back and find out, does a sponsor have the willingness and the financial resources to bear some of the risks in these investment programs? Indeed, this is a relatively new area, even newer than the rest of the things I have talked about. Sponsors are really trying to figure out some sensible way to take the pension balance sheet and the corporate balance sheet, put them down on the same piece of paper, and think about what all of that means or how to make investment decisions in the pension fund.

I submit to you that my guess will be that in the next 5 years you will see a lot of activity, and that activity will be promoted in large part, in fact, by the accounting profession, who is now forcing those assets and liabilities of the pension fund onto the sponsor's balance sheet.

Let me move on now to a couple of quick relatively closing comments here about implementation—just to give you a flavor for what the front burner issues are out there in the private sector with respect to implementing investment policy by dreaming up a management structure.

One of the key issues is, will the money be managed internally or externally? Are we going to hire outside managers, or will the investment organization be built internally? There are some very large companies who do a lot of internal asset management. GTE

comes to mind, and yet there are a lot of companies who do not want to be engaged in that. In the paper I talk about the pros and cons and what sponsors have on their minds when they decide whether they are going to hire outside money managers or not.

I think more important is the relative degree to which the assets will be managed actively versus passively. Most of you have probably had a hard time in the last 5 or 6 years reading in Business Week and the Wall Street Journal and so forth about the notion that we academics came up with in the 1960's and 1970's that the stock market is perfectly efficient, which means it is very difficult, if not impossible, to achieve results that exceed the stock market index. The return is over long time periods, and that is, indeed, a very controversial issue. I give you some data in the paper regarding what actively managed pension fund accounts have, in fact, done over those different time periods.

It is, indeed, a very, very hot question and, indeed, a lot of sponsors have chosen to do a little bit of both. They run what is called active and passive investment management structures, where the bulk of the assets will be relatively passively managed, with relatively low turnover, a lot of diversification; hence, a big core portion of the fund will be passed over. And then around the core will be satellite active investment management programs, relatively small amounts of money given to managers to very intensively manage it.

When that is done, one incurs extra risks; one incurs extra expenses.

My belief is that the judgment is yet to be made about whether the expenses and the risks taken in the active management programs, in fact, are worth it in terms of results.

Finally, on this short list of management structure questions is the issue of whether the management structure, when you hire active managers, will be balanced or specialized. Historically, most pension plans, as they grew up, gave the pension fund to a bank trust department or insurance company and said, "Take care of it," and that bank trust or company invested broadly across the equity of the bottom markets.

The new view or different alternative view to that is to hire managers who are specialists, the notion being that specialist managers have more control over the asset allocation and that specialist managers, since they operate a very small sector of the capital market, are likely to perform better because they are concentrators. So we have specialized growth stock managers, specialized yield managers, emerging technology, cyclical managers. There are very, very many ways to dissect the capital markets in terms of coming up with the specialist management structure. Indeed, I would say that probably the majority of all private pension plans, if they have not done it, are moving very rapidly into using specialist management structures.

I talked about it a little bit at the beginning, and I said very little about it up until now. Really, all of the major financial policy areas are interrelated. It is hard to think about one without bumping into the other two. The result of this has been the notion of having a planning and forecasting system from which to view alternate policy decisions and see what they will likely bring in the

future. These planning and forecasting systems are, by and large, extensions of the annual actuarial report, which is a snapshot at a point in time of where the plan stands. What these planning and forecasting systems bring to the table and add on top of traditional actuarial reports are three dynamic factors—which I have listed here and I won't delve into. The notion of a dynamic work force of new entrants coming in all the time—that should be part of a planning exercise, where the valuation of new entrants is not part of a valuation system, the experience of the plan relative to the actuarial assumptions.

What we are interested in here now is systematic deviations of the experience of the plan, and finally, the impact of impending plan changes. That is a very important condition when one thinks about, for example, flat dollar hourly plans, where a traditional valuation does not anticipate improvements in the flat dollar benefit unless they have already been negotiated as part of the plan document, yet we do know that those improvements occur over a period of time.

Finally, what I do in the paper is describe for you and give you a sense of what a planning and forecasting system looks like and how it might be used to do a pro forma analysis of various valuations of funding and plan decisions. In the interest of time, I won't burden you with looking at this too much. You can see on the liability side we do have the current plan participants. We do have the current group of plan provisions, but in the second layer, we have demographic projection and projection of plan changes, all designed in the dynamic to protect projections. On the alternate side, we have alternative asset mixes, capital market assumptions, rate of return projections. We project what the assets in the plans are going to look like, and the process of the actuarial valuation system. We come up with a wide range of valuation of assets and liabilities for, again, different asset structures.

The paper concludes with a very brief discussion of a system like this. The systems have been around for, probably, 10 or 12 years. They are useful tools. I know in planning and forecasting in some public systems, it has gotten a bad name, probably because of biased assumptions, but who knows? I think it is a useful framework. I use it in my consulting practices, and I think it will be a useful addition on the deliberations of establishing policies for the new Federal Civil Service Retirement System.

Thank you.

Mr. SALISBURY. Questions or comments.

Mr. CHANG. Yuan Chang with Travelers.

Mr. Tepper seemed to have left the question that much of—perhaps a significant amount of the capital assets in pension funds is really financed by the removal of moneys from substantial markets somewhere else. But contributions, at least for large corporations, are major expenses. Contributions to pension funds are really considered a current expense, which really puts pressure, you might say, on current consumption for removal from current assumptions into the capital fund.

I guess the basic question really is whether pension funding is a removal from other capital markets or a removal from current consumption. If it's the latter, then it has the beneficial effect of cap-

ital market formation, and if it is removed from capital, of course, in a sense, it really doesn't do any good in terms of overall economy.

I have to admit that for individuals, where they take $2,000 away from a savings account and put it into an IRA account, it is moving from one capital market to another; but it would seem that for most of the plan sponsors, the contributions are considered current expenses and therefore the pressure is on the current consumption. Does the speaker agree with that? That was really more of a comment.

Mr. TEPPER. You are quite right, and, in fact, in the paper I do talk about alternate ways in which pension contributions can be financed, but you are quite right that you have to trace all the effects back to see if consumption is changed or the income has come about. I give you a framework in the paper of a microeconomy. In order for the economy to be improved, it seems to me, one of two things has to happen: Consumption has to go down, as now said, and some consumption has to be allocated to savings when national income has to come up.

In a case where—let's consider a sponsor that does not finance pension contributions by raising credit funds. It seems to me that the capital has got to be equity funds, that it has got to come out of reduced dividends at some point in time. The real question is, when you trace that back to the stockholders, what do the stockholders do? How do they respond behaviorally to the fact that the dividends and the distributions from their firms are lower because of the fact that the capital which would otherwise be distributed to them goes into the pension fund?

In the paper I give you an analysis of all of that. The bottom line depends on how stockholders react, whether they feel better off or worse off because the firm has allocated some distributions to them and, in effect, put it in the pension fund and reduced the liability of the enterprise that they own relative to the assets, but you are quite right.

Mr. KEITH. Hastings Keith, the National Committee on Public Employee Pension Systems. Would there not be a great difference in this discussion, relative to the question raised by the previous speaker, on the maturity of the plan? If you have a plan with 25,000 participants who have years of working for the plan's sponsor ahead of them, and just 1,000 or 2,000 that are currently in the retirement picture or drawing benefits, doesn't that affect the consumption character of your expenditures? Certainly, if you had 28,000 who were retired and 1,000 contributing, you would figure, well, that is almost consumption now. The other way around, it is very largely capital.

Take, for example, the railroad retirement plan. One-third is the work force and two-thirds of it are retirees. That is almost all consumption. Would you comment? Is there any relevance to this question?

Mr. TEPPER. I'm sure there is, but I am trying to think about how it relates to what I said. I must confess, I am drawing a blank.

Mr. KEITH. I used a quasi-public plan. In the railroad retirement, you could be specific; you could take the District of Columbia, where they have $3 billion of unfunded liabilities, and they have

22,000 active participants and 8,000 retirees. That is mostly consumption.

Mr. TEPPER. What is mostly consumption?

Mr. KEITH. That plan. It is, in effect, a pay-as-you-go plan, all being used for the consumption of the retired people, and none of it is being used to accumulate capital. Therefore, it seems to me it is very obvious that that plan is contributing greatly to the consumption level of the economy.

Mr. SALISBURY. Hastings, your comment seems to be very consistent with what Irwin has said. You are describing a situation where the assets are not being funded. Irwin provided the examples of advance funding which produces capital accumulation. If it is a pay-as-you-go system, so that all of the money is being directly paid out to retirees, it would appear to be totally on a consumption basis.

Mr. KEITH. Relevant to our meeting here today, it seems to me, is the age at which we retire, the amount of pension and the amount of indexation. These components determine how much of it is consumption and how much of it is capital.

Mr. SALISBURY. Demographics show that.

Mr. TEPPER. Let's take the position that the age distribution and the payouts people are spending for consumptions are not going to change whether we decide to fund that retirement system. Is that a reasonable assumption?

Mr. KEITH. I am sorry.

Mr. TEPPER. You are describing the consumption aspect of the pension system by virtue of a very mature plan drawing down assets from the plan somehow and making consumption expenditures. I guess the question you have is, would a funded plan operate any differently, and I am, in thinking about it, thinking about whether it is reasonable to assume that the payouts to beneficiaries and the maturity structure of the liabilities will be changed at all by virtue of the funding of that system. I suspect probably not.

So the funding decision, it seems to me, ought to be somewhat separate from the consumption aspects associated with a mature work force. The question is, what would happen if the District of Columbia decided to fund its retirement system? How would they raise the money to do so. We are seeing that in Massachusetts these days. How many billions does the District of Columbia have in unfunded liability?

Mr. KEITH. $3 billion.

Mr. TEPPER. That is peanuts compared to Massachusetts.

Mr. KEITH. I would like to say, in reference to the comment on Massachusetts, that Massachusetts has more than 30,000 participants. It has probably 200,000 or 300,000 participants.

So relatively speaking, I hope that Massachusetts isn't quite as bad as the District.

Mr. SALISBURY. Let's leave that for the Massachusetts Legislature.

George, you have got a comment back there?

Mr. GOULD. Yes, George Gould with the National Association of Letter Carriers.

Mr. Tepper made a reference to a problem that has concerned a number of representatives of Federal and postal organizations and unions. That is that if we develop a supplemental thrift plan, how

is the employee, such as a letter carrier, going to acquire the knowledge that would allow him or her to invest his or her money beneficially under such a plan? Your paper itself argues that it would be difficult and you don't offer any solutions.

I am wondering if you had some ideas on how you could counsel or assist an employee in making that major decision?

Mr. TEPPER. George, that is, to my view, probably the biggest problem, as you know. It is one of implementation under the policy. I think that probably all could agree at a conceptual level that anyone bearing risk in the capital markets ought to be able to make a decision as to how much risk they want to bear and where to place their assets. The question always comes up as to whether people do want to make that decision, and if they don't want to make that decision, people have considered putting default options in the plan. "If you don't elect an investment vehicle, here is how your money will be invested."

There is some question about whether that is even the right thing to do and, in fact, whether there are some prudent questions associated with that. The answer to your question is, I don't have an answer to your question. I believe that participants ought to have the right to elect options. I don't know what default option I would give participants. It seems to me that the investment stature of each individual participant ought to be somewhat related to age, family status, tolerance views, wealth levels. Most private plans do, in fact, allow the participants some limited amount of choices.

I think as a practical matter, you have to give them a relatively limited amount of choices, not let them make moves very often, maybe once a year or so, so that you don't allow participants to play market timing games. There are restrictions you can put on it.

I do agree, though, that it is tempting not to give participants investment alternatives when you are really worried about what responsibility you are throwing onto them for that and what your responsibility is, given that you probably have to come up with a default option.

Mr. SALISBURY. Larry Smedley?

Mr. SMEDLEY. Yes, Larry Smedley, AFL–CIO.

You made the point in talking about intergenerational transfers that Social Security and public pension systems have less mechanisms to counteract intergenerational transfers.

I won't disagree with that point. You went on to state, in your paper, "The public retirement system's lack of funding reduces current taxes at the expense of increasing the future tax burden."

Assume you have a level funding contribution rate and the Social Security Cash Benefit Program comes close to that, and assume you have a reasonable expectation of a rising standard of living through increased productivity so that you double or triple real income in the future—can you really say that the tax burden is increasing?

Mr. TEPPER. Oh.

Mr. SMEDLEY. If you have a proportional tax, the tax burden is not really increasing, is it?

Mr. TEPPER. I am taking the analogy which says, all else equal, if you don't fund the plan now and benefits come due, someone is going to have to put in more money later on.

Mr. SMEDLEY. Wouldn't it be more accurate to say that taxes may be higher in the future, but the tax burden may be less? Because if you have normal increases in the standard of living that we have had in the past, the tax burden should normally be less if you have the same tax rate, and could be less even with a higher tax.

Mr. TEPPER. I would agree with that if you are interpreting the tax burden in the sense you are interpreting the tax burden.

Dennis?

Mr. SNOOK. Dennis Snook, Congressional Research Service.

Again, on this question of whether or not there can be intergenerational transfer in the public pension plans: Assume for a minute the Civil Service Retirement System, if aggregate payouts remain constant and there is no increase in taxes or cuts in other Government spending, how would investment policy reduce or increase consumption anywhere, inside the Government or out?

Mr. TEPPER. Can you repeat that?

Mr. SNOOK. If you held aggregate spending constant, that is, if aggregate fund payout was constant and there was no increase in taxes elsewhere in the Government to advance fund the Civil Service Retirement System, nor was it funded by reducing consumption elsewhere in the Federal Government; in other words, if any policy of investing money outside the Government was actually the result of the Federal Government borrowing money in order to invest—how would that reduce consumption, either inside the Government or out, either now or in the future?

Mr. TEPPER. I don't believe it materially would. That is one of my points in the paper, that I don't believe it materially would.

Mr. SALISBURY. Jamie Cowen?

Mr. COWEN. Jamie Cowen with Senator Stevens. I have a follow-up question to Denny. I know the point you made in the paper regarding the impact of investment on capital formation, and you have basically said one offsets the other; in a sense, the corporation borrows to fund its pension program, and altogether, there is no impact on the capital market.

But if you take the Federal Government example again, like Denny was just taking, and you begin to invest some of the moneys of that system in private markets, couldn't it very likely have an impact on capital formation by doing that?

Mr. TEPPER. It can have distributional impacts. Certainly, if you redistribute from one sector of the capital market to another sector, that can have distributional aspects of how capital forms. It can have effects on behavior, and effects on behavior can change consumption or increase national income, one or the other.

I hope it didn't come out in the paper that I suggested that there is no impact at all by funding a plan in allocation of assets and savings. I hope, and the intent of the paper was, to say there are some financing implications in this. Dollar for dollar, the money has to come from somewhere. One really has to think about the distributional aspects of those, redistributions of capital, and try to imagine how that is going to impact savings.

I think I reacted so strongly because I have read in many periodicals that we have all these hundreds of billions of dollars out

there generating capital because we funded a private system. I don't think that is the right way to characterize it.

Mr. COWEN. As a follow-up question, also referring to what Denny said, he made the assumption that the Government would not increase taxes to invest, nor would it reduce its own spending to find the money to invest privately, but it seems to me the Government has three sources of funds if it wants to invest privately: One is to borrow it, in which case I would agree that there would be no impact on the markets; the second source would be tax increases; and the third source would be to reduce its own spending. It would seem to me—tell me if you don't agree—that that would increase capital.

Mr. TEPPER. That has got more likelihood. I hate to do this in this enlightened forum, but let me try it on you.

Let's think about taxpayers, and let's think about a magic world of academia and pure theory—the world that I left because I got tired of thinking about that world—and think about how taxpayers respond if you increase the taxes to fund this new Federal Civil Service Retirement System. If the taxpayer is rational—and bear with me, now, I don't want to imply that this is reality—if the taxpayer is rational, that taxpayer is going to say, gee, I am getting taxed more heavily now, but the fund is going to accumulate assets. Therefore, we taxpayers are going to have actually lower taxes later on because money is going to be set aside to pay these benefits. So if that taxpayer is somewhat logical and rational and can see clearly and the world is beautiful and perfect, that taxpayer might reduce his or her own personal level of saving. At least that is what a theoretical macroeconomic equilibrium would suggest, that that taxpayer would not feel worse off necessarily because of the insult of higher taxes because the taxpayer will be rational to know taxes will be cheaper in the future, and this taxpayer will say, gee, I won't have as high taxes in the future; I won't have to save as much, and you will afford the level of taxes by reducing somehow your personal level of saving.

Let me just end that by saying that is a theoretical proposition.

Mr. SALISBURY. Denny, you have a follow-up?

Mr. SNOOK. Yes, I think I would like to continue on that for a minute longer. Supposing, as you say, we increase taxes to achieve this funding, this advance funding. Is there any difference between that and the taxpayer investing his money directly in the investment portfolio and bypassing Government? Is there a difference?

Mr. TEPPER. I am just nodding at your question, because it is probably the right question to ask at this point.

Mr. SNOOK. OK. If there is no difference there, if the actual amount of money in the economy for investment purposes has not changed, how can there be any further effect or, rather, how can there be any diminutions in the effect upon the relationship between future taxpayers and future beneficiaries? It will still require those bonds being cashed in, whether they are publicly or privately held, in order to be converted to cash for benefits payments.

It would be my assertion that there can be no impact on the taxpayer, now or in the future, other than reducing benefits or increasing employee contributions.

Mr. TEPPER. I mean, for a purely rational, perfect world, that is a perfect prescription of what would happen. The question really is, I think, if the Government does it that way in the real world, financing with higher taxes, financing pension contributions to fund the system as opposed to issuing more bonds, my own personal belief cannot be supported in any sense by the macroeconomic equilibrium analytical analysis.

My own personal analysis is you will have to go back to some form of capital formation.

Mr. SNOOK. Would it be possible that the impact of external investing that you want to identify is in the distributional area that you were referring to earlier and not so much the supposed advantages of advanced funding?

Mr. TEPPER. Yes.

Mr. SNOOK. Or in the reduction of future tax burdens. But there would be a general reduction in consumption on the part of workers who pay income taxes and a general increase in the consumption of corporate enterprises as they fund their ventures?

Mr. TEPPER. Yes.

Mr. SALISBURY. George Cowles, you have got a comment?

Mr. COWLES. I am George Cowles from Bankers Trust Company. I wanted to follow up on the comment made by the gentleman representing the Letter Carriers about the freedom of choice of investment vehicles. We are a trustee of hundreds of savings plans. I don't know of one with a default clause, for instance. I think the blue-collar worker, the white-collar worker, and the pink-collar worker are all more financially sophisticated than we typically give them credit for. There is a communication problem there, and that is key to it.

But I do not know of a default clause. In virtually every one I am familiar with, there are typically three choices, sometimes as many as 10 and 15, and it does not appear to blow the man in the street's mind to have to decide among those options in making investment decisions.

Mr. TEPPER. You mean a broad description in big blocks such as stocks, cash, and bonds.

Mr. COWLES. A typical plan will allow you to invest contributions in 10 percent increments, and if you have got 5 or 6 or 7 investment options, you can have a wide menu of selections. The typical participant seems to be able to cope with that.

Mr. TEPPER. Let me make one comment about that, George. You are quite right. I think that this whole issue gathered steam, again, at the end of the 1973–74 bear market, when people who were approaching retirement got big accumulations wiped out. I think at least in a defined contribution plan, if it does nothing else, it gives participants a way to reserve capital in some type of a short-term vehicle.

Mr. COWLES. I hate to blow the horn of the insurance industry, but a guaranteed insurance contract tends to attract a great deal of money. It depends on whether you are looking at the money in there as short term, medium term or long term. If there is an opportunity for in-service withdrawals, then the contributions tend to flow into fixed-income instruments. If it is permanently deferred, as it would be under a 401(k), then the money tends to fall into

common stock options, which means, to me, that the financial sophistication of the participant is greater, as I say, more than we tend to give them credit for.

Comment here?

Ms. BARBER. Jean Barber with OPM. I want to ask whether you then think it would be realistic for the Federal pension system to limit the vehicles to 10, 15, that might be understandable by the individual participant. We would be talking about a system here that is going to cover several million people and have billions of dollars involved. One of the things that bothers me is I can see the financial community all wanting to have approved investment vehicles. We have a parallel for this in the health insurance field. Most private companies offer choices of two or three plans to employees. We now have to offer over 200 to Federal employees.

I can see if we went this way, we might be swamped and find it very difficult to resist the pressure to approve virtually any sort of investment vehicle. Well, you might be able to limit the types of investments, but as to who was offering them, I think it would be extremely difficult to keep it to any manageable number.

Would anyone comment?

Mr. SALISBURY. I would offer a comment, which Irwin may want to follow up on. Irwin mentioned internal management versus external management. If the Federal Government wanted to provide various options and wanted to avoid the multiple choice approach, it would be very possible for them to opt for an internal management system where they were to set up funds, then contract with insurance carriers as providers of guaranteed insurance contracts, or with other intermediaries.

There are ways within the framework that Irwin set out that this could be worked around. I think you are focusing on the political issue, however.

Ms. BARBER. Yes.

Mr. SALISBURY. Yes, George?

Mr. GOULD. Just briefly, I wonder if it would be possible for the Chair to request the Bankers Trust representative to put some examples of what he was discussing on the record, something that we could look at at a later date. It would be helpful to some of us.[1]

Mr. SALISBURY. I would be happy to request it, George, that it be submitted to the committee, and if anyone else here has any material that might provide enlightenment on this question, that it could be included in the committee print before that print is published.

I think what some of these comments highlight are the questions of how much they cost as the percent of pay as well as how big unfunded liabilities are. As Irwin's presentation pointed out, the level of contribution and the level of unfunded liabilities that exist in the Civil Service Retirement System, the military system, the District of Columbia, or Massachusetts, are all the result of very explicit decisions by someone to not advance funds in favor of pay-as-you-go.

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[1] The information referred to may be found in the subcommittee files.

In this setting, in the congressional setting, they have been the result of very explicit decisions, as well, as they will be in designing a new-hires Federal Civil Service plan.

The next presentation on the issue of funding expense and liability issues by Jim Curtis is a presentation that will take us into the detail of how one makes some of those explicit choices and what the consequences of those explicit choices may be on cash flow and other perspectives.

Jim is currently Chairman, President, and Chief Executive Officer of the consulting firm of Milliman & Robertson, Inc. He is a Fellow of the Society of Actuaries and Conference of Actuaries in Public Practice, a member of the Academy of Actuaries and involved with the Canadian Institute of Actuaries as well. He has been very involved in both the public and private pension area and, particularly, his firm, which serves as actuary and consultant to many public employee systems as well as many private employee benefit systems and pensions.

He also serves on a number of corporate boards, such as K-2 Corporation, and therefore, has also been in the realm of making decisions similar to those which the Congressional committees must make.

Jim.

II. FUNDING THE DEFINED BENEFIT PENSION PLAN

(Presented by James A. Curtis, Chairman, President, and Chief Executive Officer, Milliman & Robertson, Inc.)

Mr. CURTIS. I want to introduce Denny Stanley who assisted me in putting this paper together and helped with the slides. Today, I may tell you a lot more than you really want to know about pension funding. Some day, when you have a plan, you are going to see an actuarial report with such terms as: present value of benefits, normal costs, present future value of normal costs, and amortization of unfunded actuarial liability; you will probably want to throw your hands up. Possibly today, we can make some of those terms a little bit easier for you.

Basically, the job of the actuary is to assist the providers of a pension plan on how to pay for benefits. First of all, let's talk about a typical pension plan.

A typical plan in private industry bases the benefit upon salary at your retirement. A very simple benefit would be one that provides 1.5 percent times your final average salary, which is usually a 3- or 5-year average, for each year of service.

So by taking a very simple sample of a person aged 35 whose average salary is $2,000 per month, the benefit at age 65 is 1.5 times $2,000 times 30 years, or $900 per month for life, commencing at age 65.

Our problem is to try to determine how to pay for those benefits. Some years ago, there was an article in the Harvard Business Review which had a pump. Basically, this pump is designed to show that there are three sources of income into the pension plan: the contribution made by the employer; the contribution made by the employee; and the investment income.

There are only two ways to get the money out: One is the big spigot at the bottom right, which represents the benefits, and the other, which consultants like to remind you of, is the small drip for expenses.

As long as the plan is working, the funds in the pump will build up. If it gets too high, you would probably open the bottom and pay larger benefits. More likely, the fund may become too low, and if that happens, you will need to start to pump in money faster.

Actuaries like to tell you that they determine the costs of the pension, but that is not true. The actual costs of any pension are what you pay out in benefits and expenses minus whatever you earn in investment income. That is the true cost of any plan and the actuary merely helps you estimate those costs in advance.

There are several activities performed by the actuary. He knows the plan of the benefits; he gathers employee data; he chooses the actuarial assumptions; he selects the actuarial cost method; and he computes the cost.

Before an actuary can evaluate the plan, he needs to know the benefit provisions. Obviously, we need to know the unit of benefit. Is it based upon salary? When do benefits begin? Is it at 65? Do you receive benefits before 65, and are they reduced or not reduced? If a person terminates service after X years of service, does he have a vested benefit? How about death and disability benefits? And what service do you provide benefits on? These are questions which must be answered before the actuary can begin to put a price tag on plan costs.

Those of you who will be involved in the plan design process will have various options, and then you will ask the actuary for cost studies showing the effect of the various plan provisions. Assumptions will have a major impact upon the measurement of costs for various plan features.

For example, if you increase your investment return assumption, then costs decrease. By the same token, if you decrease your interest assumption, you will increase the costs. In the paper, we have listed various assumptions and shown how they affect the cost.

Let's just take one set of simplified assumptions to demonstrate these various terms that I mentioned earlier and see if we can develop a definition for them. Let's assume that salaries do not increase; investment return is zero percent; no one becomes disabled; nobody terminates; nobody dies before 65; expenses are zero; and we have one male employee, age 40, who could anticipate living to age 80. This is a very, very simple set of assumptions.

Let's see how we would fund a pension plan for this one person. Assuming that this employee's salary is $20,000; that the Social Security benefit base is $12,000; that this person is currently age 40; and that he has 5 years of past service, and therefore, this employee would have future service, at age of 65, of 25 years, for a total service of 30 years.

Let's assume that the Social Security is integrated so that the benefit is lower on that part of salary which is subject to Social Security and a higher benefit for that portion of a person's earnings that is not subject to Social Security.

A typical plan such at this would be 1 percent of the high 5 average years of salary up to the Social Security benefit base and a larger benefit of 1.5 percent on service times the high 5 over the Social Security benefit base.

Let's take our employee and value his benefits. If you go through the arithmetic, you will see that this person would receive $7,200 when he retires. Notice that we have no increases for salary; we will talk about that later. Now, the question before the house is, how are we going to pay those $7,200? One way would be pay-as-we-go.

What we would do, in this case, is pay $7,200 for 15 years; that is the life expectancy of the employee. If you go through the mathematics, you will find that $7,200 times 15 years is $108,000. The $108,000 can be thought of as the present value of future benefits. Since my example has no interest and no mortality, except for a life expectancy of 15 years, we can easily see how to arrive at a present value of benefits of $108,000.

Notice that no fund develops under pay-as-you-go. Prior to age 65, no funds are accumulated and then we start paying $7,200 a

year. In other words, the contribution and benefits were paid entirely from the employer, provided they had those funds available to make payments. This type of plan is not allowed by ERISA, but it was very popular 40 years ago.

Now let's move to a method which is called "terminal funding." Under this method, you take the present value of benefits, $108,000, and make a contribution at age 65. Maybe you buy an annuity, or you set aside enough money to buy all the future benefits.

Neither of these first two methods is an advance funding method, since no contributions are made prior to the time the person retires. Let's talk about the real world and advance funding methods.

I am going to go really fast now. As you study the paper, I think you will be able to work out some of the arithmetic.

Let's talk about how we might pile up enough money to pay $108,000. One way would be to accumulate the funds from the time the employee came to work. Notice that was age 40, so all we do is to take the total amount of funds we need, $108,000, and divide by the 25 years from age 40 to age 65. An actuary that did this many, many years ago was trying to come up with a method. He said, "Let's take the amount of funds we are going to need and determine a level amount to be paid over the working lifetime of the employee, measured from his attained age. We will find some amount that will normally be paid from time to time." Therefore, he had a definition. You oftentimes hear this method referred to as the attained age normal cost method. All that says is that your costs are measured from the person's attained age to the day he retires; in this instance, 25 years. So simply, you take the $108,000 and divide it by 25 years, and you arrive at $4,320 per year, and that amount is called a normal cost.

There is no liability other than that. Everything is spread out over the future working lifetime. If you had this for a program, you would not have an unfunded liability, which we will talk about in a minute.

Another typical method of funding retirement plans is to measure cost, not from the person's attained age, but from the person's age at the time he enters the plan; if you will, his entry age. So basically, you take your $108,000 and spread it over the total number of years from entry age 35 so that you have a total of 30 years to fund the liability.

Now, the actuary wasn't too good at naming things. He said, "I still want a plan that levels cost out over the future, and normally at level costs, but let's measure it from the entry age, not the attained age," and behold came the definition of the term "entry age" normal cost method.

There is one thing missing with this method, and that is that the plan wasn't in existence for the first 5 years this employee worked, so you had to sum up those unpaid normal costs, and we actuaries call that amount the "unfunded liability."

You are going to see another method a little later that determines the unfunded liability as the value of the accrued benefits, but typically, plans throughout the United States, in the public systems as well as in the private systems, use this entry age normal

cost method, and therefore, the unfunded liability is the amount of the unpaid normal costs at the inception of the plan.

Another way I like to think of the unfunded liability is that it represents the amount of assets that would be piled up had you always had this present plan in existence. So if we already had this plan in existence and we earned whatever the actuaries assumed, you would have not an unfunded liability, but that amount of assets. Whichever way you like to look at it, this is how you arrive typically at an unfunded liability.

The problem is, if you do have an unfunded liability, how long a time do you want to pay it off? Typically, under ERISA now, we are looking at a 30-year limit. In industry, many companies will attempt to pay it off a little faster than that; generally, you will find that most corporations and most systems pay off this unfunded liability over some period between 20 and 30 years.

In our example, the unfunded liability is the 5 years of unpaid normal costs, or $18,000. If you decide to amortize it out over 30 years, you will have a payment of $600 for a 30-year period.

Finally, the normal costs are paid from inception of the plan, or 25 years, and the smaller amount paid for the unfunded liability is paid for a longer period, or 30 years.

Really, there isn't anything more complicated about the work that the actuary is doing, except the picking of the assumptions. In the real world, we are going to have a lot of different assumptions. When we finish, we will bring it back to this type of a demonstration as to how much do you want to pay on the unfunded liability, and how much is your normal cost.

Quickly, I want to refer to another method that actuaries call the "unit credit cost method."

Under this method, each year you are buying the piece of benefit that an employee earns, similar to a term insurance policy.

I will tell you more about that in a few seconds. Basically, I think you should keep in mind that if you do have a defined benefit program, you will be defining the type of benefits; and eventually, the actuary will have to make a decision as to the funding method. Usually, that choice is going to impact the plan as to how fast the plan is being funded.

Here again, as in the paper, the unit credit method goes through the same thing. All the methods are designed to do the whole thing, to pony up the $108,000 that we need in benefits.

Let's move now into the real world where salaries do go up and where we do earn an investment rate. How will they impact the cost? For the remainder of time, I want to refer you to that part of the paper and show you how those costs behave in the future if you take into consideration the fact that salaries do go up and that money is productive.

Let's assume that salaries go up by 6.5 percent each year, compounded annually. Also, assume that the invested assets earn 8 percent. Notice that the spread between the rate of return, the 8 percent, and the increase in salaries is 1.5 percent. If you go around the country and check various plans in existence today, you will probably find the spread is something around 1.5 percent.

Basically, you will find that the spread is not too far from 1.5 percent. Some plans may be assuming that earnings or investment

earnings may be 9 percent but that salaries will go up to 7.5 percent.

In most of the studies I have seen, the actuary is assuming that the investment return is going to be slightly higher than the salary scale, although there is no reason that it couldn't be the other way around. Take your choice, but the main thing is that difference between those two rates. In this case we are using 1.5 percent.

To keep it simple, let's assume that there is still no disability, no withdrawal, no death before 65, and the same old life expectancy of 15 years at age 65. The reason we want to show you these assumptions is to show you how the costs are impacted by the actuarial method each year in the future.

Here is our hypothetical employee again. The salary at age 40 is $20,000. But if you increase it at 6.5 percent, up to age 65, you will find that our employee is making $96,000. The cost of a loaf of bread is probably around $22 at that time, in case everything is relative.

The Social Security benefit, which we have inflated at 5.5 percent, would come to $45,000. This person's high 5-year average salary would be $82,000.

How do the costs behave in a typical situation where you are using discounts for interest and salary scales? First of all, we calculated the benefit. We don't get $7,200; we get $30,000. So if we are going to fund towards a benefit in the future, we had better know what benefit we are funding for. There is, as you can see, quite a difference in the level of benefits.

In the paper we talk about how we arrive at these costs. But since salaries are estimated, what we do is calculate the normal cost, not as a dollar amount, but as a level percent of future payroll. In this situation, the level cost would be 7.755 percent of payroll. As the payroll goes up, you are going to be contributing that same percentage, but in an increasing amount, so the dollar amount will go up.

Here is an example. The normal cost stays at 7.755 percent, but the contribution moves up from $1,100 to $7,000 as the salaries escalate. So as a percent of payroll, it is the same.

We determined the unfunded liability, and that is explained in the paper as $8,000. Again, it is amortized over a 30-year period from age 40. Notice that, like an amortization of a house mortgage, this payment is constant. So as you relate that to a person's salary, that percentage is decreasing. Notice the dollar amount is increasing for the normal cost, but staying constant for the amortization of the unfunded liability.

We go through the same calculation for unit credit cost, and since this is explained in the paper, I will basically reflect upon the results of how they compare. The darker costs are the annual costs of the entry age cost method, and the vertical bars are the unit credit costs. What I would like to leave with you today is to realize that typically, an entry age normal cost method will produce higher costs in the early years. The unit credit cost method will produce lower costs in the earlier years, and then there is a point where they flipflop.

I think it is very important to planning to not kid yourself and buy a plan just because the first year costs are quite low. I think

that one thing you are going to have to do—Irwin mentioned a bit about it—and that is to do cost calculations. It is no longer practical just to do a snapshot, as we are doing here with costs, but to do a projection of what happens in the future and play the game of what happens if we earn 10 percent or 8 percent or lose money.

Finally, we want to leave you with some idea payroll-wise of how these two methods behave. You will see that they aren't as far apart as you might think, but somewhere around 20 years into the plan, 10 or 15 years in this plan, those costs as percent of payroll will cross. The entry age normal cost method will produce higher costs initially and reduce on down. The reason they come down is because you take that constant amortization of the unfunded liability divided by an increasing salary. Percentage-wise, it is going to decrease.

The opposite is true under the unit credit cost method. So again, for this paper, we suggest that you focus on the fact that the actuarial method will produce different incidents of costs. With that preview of the paper, I would be happy to answer any questions.

Mr. SALISBURY. Questions or comments?

Mr. CURTIS. Are they ready for the examination?

Mr. SALISBURY. The tests and the pencils will be handed out in about 15 minutes.

Yes, Jamie?

Mr. COWEN. Jim, you mentioned in your paper, and you mentioned today, the interrelationship between salary increases and interest rates on the cost of the plan. Can you explain that a little bit?

Mr. CURTIS. I think the assumed rate of interest is probably a little easier to arrive at, although in the future it may become more difficult. Historically, when actuaries talk about the interest rate, they are talking about the rate that they feel the funds are going to earn in the future.

If we take 6.5 or 8 percent, we are always assuming that rate is going to be that amount. As we get into more and more projection systems, the actuaries are starting to use variable rates, and the variable rate might be 8 percent for 4 years, 9 percent for 10, or some other variable rate in the future. I think you should keep that in mind, that in the past it has been one rate, but in the future you are talking about a whole family of rates.

On the salary scale, it is a little bit more difficult because you attempt to build into that rate something for earned increases in salary, productivity, and also inflation, and that is where it becomes difficult to determine just what those rates should be.

We found, though, the difference between interest and salary has a large impact upon costs.

You have got to be careful; it is not always going to be a constant difference. But we don't get too concerned, because one company may be using 5 percent interest and 3.5 percent salary scale. The actuary can jack them both up and still the cost might be similar.

Mr. COWEN. In other words, you are saying that as long as the differential is similar, the projected costs of the plan will be similar?

Mr. CURTIS. Yes. As you go up higher and higher on the interest rate, you will find that the interest rate is more important than

the salary scale, because the interest rate goes on as long as you have invested assets. Salary scale only goes as long as you are calculating the person's benefit. So remember that the impact upon costs is that the interest rate is more important.

Mr. SALISBURY. Yes, sir.

Mr. TOBIN. Vince Tobin from Buck Consultants. Of course, another thing, James, that you have to take into account is the extent to which you give cost-of-living increases after retirement.

Mr. CURTIS. In this paper I have not taken into consideration any increases for indexes after retirement, but believe me, it is drastic. I will give you an example. If benefits for retirees always increase at the rate of 3 percent, then the actuary would find out that the liabilities are 30 percent higher. So you start thinking in terms of double-digit inflation, as we did a few years ago. You can see that indexed plans are extremely costly. On a different subject, I have a real pet peeve; that is, one of our great problems in Social Security is not going to be solved until we eliminate the indexing.

Mr. SALISBURY. On that non-controversial comment——

Mr. CURTIS. Non-controversial comment?

Mr. SHANEFELTER. Al Shanefelter, GAO.

Would you talk a little bit about the prevalence of the variable rates for interest?

Mr. CURTIS. Variable rates are just starting because actuaries are getting tooled up so that we can have a true projection system. A true projection system is one that actually calculates what the costs will be each year in the future based on a series of events. One of the series of events is that you won't always earn the same rate of return. So the actuaries and the economists are getting together. The economists are saying, OK, with this given asset distribution this is what we think is going to happen to rates of return. Mr. Actuary, what would it cost me?

Someone else may say, I have got an idea. What would be the effect upon the costs? As we start studying all kinds of variable rates, you start to see a pattern evolve. It is a comfort level, or maybe it worries you, but at least you will have some idea of what is going to happen to these costs in a few years in the future based on scenarios of the variable rate.

Mr. SHANEFELTER. Would you see that being incorporated in an actuarial valuation?

Mr. CURTIS. I see it in a valuation this way: The actuary will pick a rate of return, and that will be the basis for the actuarial valuation. Then the actuary will show the impact of various variable rates so that you, as a plan sponsor, might get a feel of just how critical this rate is.

So I don't see us making contributions based on a variable rate as much as I see how the variance will affect in the future.

Mr. SALISBURY. Ed Jayne.

Mr. JAYNE. Ed Jayne, with Senator Bingaman. I think this relates in my mind to the question of dynamic funding, its usefulness and viability. Would you comment on that generally, or other alternatives of accounting for inflationary trends?

Mr. SALISBURY. Did everyone hear the question? Would you restate it, Ed?

Mr. JAYNE. I am interested in Mr. Curtis' comments on the issue of dynamic funding. I think all of the questions relate to that issue, and I wanted his comments on its usefulness and viability.

Mr. SALISBURY. You can start with us, Jim, on what dynamic funding is.

Mr. CURTIS. Let's be sure we understand. I think we can say dynamic funding is something more than just a snapshot and gets into a value projection type system where you take into account future conditions that maybe don't exist today. All I can say is this: 5 years from now, there will not be any large plans in the United States that will be determining costs on any basis other then a projection system.

In the past, what we have done is to make a calculation and tell you that the cost of your new plan is going to be $X, probably based on data that is 1½ years old. And we may have calculated it 6 months ago when the stock market was up here. Then you say, actuary, hey, turkey, it is already down here, and you based your calculations on the higher values. Therefore, with the use of the computers, there is no reason in the world that we can't have this type of a funding and give you a certain comfort level about what is going to happen.

I will give you just a quick example. Typically, under this type of approach, the actuary would pick any set of assumptions that he or she believes is the right one, and maybe that is 8 percent interest and 6 percent salary scale; makes the calculations; and then starts to play the game of "what if." That is when the valuation really starts to make some sense as to what if we don't earn 8 percent; what if we earn 10? What if we earn 4? Then you start to get a feel, and I think it is going to make a bit of difference as to how much money is put into these plans.

I'm not sure today whether the plans in industry are overfunded or underfunded. Five years from now, or even 2 years from now, I think we will have a lot better feel based on the projection systems.

Mr. GULOTTA. Mike Gulotta from AT&T. I have a couple of comments. With respect to variable interest rates and the determination of contributions in AT&T plans, we use variable interest assumptions for the purpose of reflecting the fact that currently we are experiencing very high rates of return relative to what we have seen historically. Variable assumptions reflect those rates over, say, the next 10 to 15 years, and then move back to a rate of return which is a long-term average rate of return.

So variable interest rates are used in determining the contributions for the AT&T plans, and for the plans of the Regional Holding Companies which have been divested from AT&T.

The second point is on the interest rate and salary scale. The difference between the interest rate and the salary scale is very significant for a final pay plan; that is what we have been talking about this morning in Jim's illustrations.

When you move away from a final pay plan, say, to a career average pay plan or to a flat dollar plan—that is, a plan that is not at all related to salary—then the difference between the interest rate and the salary scale has no significance whatsoever. The interest rate is what you must focus on. I think you will find that interest rates typically used by actuaries in flat dollar plans and career

pay plans are lower than those which actuaries use for final pay plans.

I agree with Jim that the difference between the interest rate and the salary scale is very significant, but that, of course, relates almost always to the final pay plan and not at all to the flat dollar plan.

Mr. CURTIS. I agree. It depends on how the benefits are structured.

Mr. KEITH. From a technical point of view, is the unfunded liability required to be furnished by Government agencies to the GAO and Congress in Public Law 95–595? Does the unfunded liability that appears in those statements refer to just that 5-year period that you showed from 35 to 40 years in your example?

Mr. CURTIS. Let me get just a teeny bit more technical than in the paper. It would be possible that you would have a plan that did not pick up any past service benefits at all, but still have an unfunded liability. Remember, I said that the unfunded liabilities are, in the typical method, not the cost of past service benefits, but the amount of money that would have been piled up had you always made the normal contribution. So the benefit level, whether you go back 5 years or 10 years or 15 years, would have an effect upon the size of the unfunded liability, but this would be one if you gave no credit at all.

Mr. KEITH. Mine is a more specific question that perhaps Dallas can respond to or perhaps Jamie. Public Law 95–595 requires retirement plan sponsors of the Federal Government, all 60 of them, to furnish the GAO and the Congress with the amounts of unfunded liabilities of the pension systems which they are reporting on. Do they use the——

Mr. CURTIS. The entry method?

Mr. KEITH. The normal method and not really give a dynamic presentation with reference to the cost-of-living adjustments for the current—those current participants who are retired and who are drawing cost-of-living adjustments?

Mr. CURTIS. I'm not sure. Can you answer that?

Mr. SALISBURY. My understanding is that they are dynamic numbers.

Ms. BARBER. They are dynamic.

It is on an entry age, normal cost basis.

Mr. KEITH. But do they reflect cost-of-living adjustments postretirement?

Ms. BARBER. Yes, they do.

Mr. SALISBURY. At an assumed rate of what?

Mr. CURTIS. Five percent.

Mr. KEITH. Five percent is the assumption for inflation.

Mr. CURTIS. That is what I understand.

Mr. KEITH. And I believe 4 percent is the assumption for the return on the portfolio.

Mr. SALISBURY. So they are fully dynamic in that regard.

VOICE FROM THE FLOOR. What I am hearing you say apparently is that with new forecasting methods coming up, you will see most plans going to possibly total variable contribution rates, set in each year. I can see a problem with that with governmental plans, because governmental agencies are always happy to lower the contri-

bution rates, but there are other excuses to find to increase those rates: lack of investment and returns and et cetera and et cetera. I wonder if you might comment, because I think this is going to have a strong bearing on a Civil Service plan if you have variable rates.

It just doesn't seem to me it would work as well for a government.

Mr. CURTIS. The people here who are going to be making the decisions will have to determine the appropriate contribution rate. We are doing a study in the State of Washington to try to answer the question or whether or not that plan is underfunded or overfunded.

Mr. SALISBURY. You mean State public employees?

Mr. CURTIS. State public system, yes, where all the employees are under the same system. There is a new system for people who have been hired in the last couple of years. They are in a different system, but most of the people are on the old system. The actuary has been saying for a long time, this plan is underfunded. I think he is right, but the only way we can really find out is to start playing this game of, what would happen in the future, if we earn high rates, low rates. you name it. Then we can start saying to the Legislature, yes, there is a large probability that the plan is overfunded or underfunded. Without the dynamic test, you can't find out.

I wouldn't want to be quoted that I said we will have variable rates going in. I don't think that will happen, but you will get away from this deep pocket type of theory that there are billions of assets over here, and somebody says, gee, look at all this money, and we are only paying out this much.

Mr. SNOOK. With respect to your plan in the State of Washington, are your pension fund assets invested internally in State securities or externally in bonds?

Mr. CURTIS. It is one of the few States that have external, and from what we can see, they have been spectacular.

Mr. SNOOK. Had you invested internally, would it make any difference to Washington State taxpayers what the contribution to the fund had been over time?

Mr. CURTIS. Let's assume it would be the same. We still have to project into the future.

Mr. SNOOK. With respect to future costs or with respect to policy provisions?

Mr. CURTIS. We were going to start with assets. In fact, there will be some matching of assets and liabilities in this study we are doing as to what is going to happen, but basically, we will start with what the assets are today and move forward with various assets as they go up or down or sideways.

Mr. SNOOK. In looking at Civil Service retirement policy, had the Federal Government increased its contributions to the retirement systems in the past, that is, if there was a larger ratio of funded assets to projected future liabilities, would it make any difference whatsoever to taxpayers in the present or the future?

Mr. CURTIS. I will let somebody else answer that one. Could you ask a definite question? I can't answer that. The question was, historically has this happened. I don't know whether it has.

Mr. SNOOK. No, I am saying that, historically, there has been the assumption that the Federal Government did not contribute suffi-

cient funds to the Civil Service Retirement System to fully fund all of its benefits. Consequently, on a dynamic basis, the ratio of funded to unfunded is about one-fifth of the benefits are funded. What I am asking is, if the Federal Government had contributed more money and invested it internally through the Civil Service retirement fund so that a smaller ratio of its current liabilities were unfunded, would it have any impact on taxpayers now or in the future?

Mr. CURTIS. I am not going to get into that argument, because you get into playing this game that had they put more money into the plan earlier, would they have had to tax more people or heavier taxation to make that contribution.

I don't know. Mr. Chang, why don't you step up?

Mr. TEPPER. Oh, no.

Mr. SNOOK. Is there any relationship between taxes and funding, or is the relationship strictly one of taxes to benefits?

Mr. CURTIS. I can make arguments in either direction. That is a very, very good, and very, very difficult question.

Mr. SALISBURY. This will be the last question.

Mr. HUTCHISON. Gray Hutchison, Hutchison and Associates. I am from North Carolina. We do a lot of governmental work for cities and counties, which are just small samples of what you are talking about here. I am thinking of one of our major cities which 25 years ago set up a plan and offered very fine disability and death benefits in their retirement plan. About everything that you have ever dreamed up today was offered 25 years ago, but they didn't put up any city money.

They did take contributions from the employees and used policemen's money for many years to fund and pay benefits, and had a surplus, which is a typical scenario. They had an actuary come in 20 years ago and make recommendations but did not adopt them. More recently, we were brought in. It turned out to fund and make up for what the city had not contributed 20 years ago, they would have to put in about 80 percent of payroll of the particular government employees to put the plan on a sound funding basis, whereas it could have been adequately funded if they had contributed something like 5 to 6 to 7 percent back originally.

I think to answer your question, yes, it does make a difference.

Mr. CURTIS. It does make a difference, and obviously, in that situation, the only thing that I can add is wouldn't it have been marvelous if some 25 years ago we would have had the ability, the technical knowledge, to project. What would have happened is you probably wouldn't have had that big of a benefit. You wouldn't have put that much in. You would have said, we won't have that big of a plan.

Mr. HUTCHISON. Let me add something Jim doesn't have on his chart. With all these variables, we have noticed that a very large percentage can make an awfully big difference. I think you mentioned a slight percentage could be a 30 percent increase in benefits. One of the things in the political plan is it is easy to promise benefits but it is awfully difficult to raise taxes to pay for them.

I know in this particular city, one of the councilwomen came up with the idea we should have an unlimited cost-of-living increase added to the program. She thought it was so good she thought it

should have been added to our State system, which is one of the better systems.

The State actuaries said it would triple the cost to North Carolina to do what she was talking about. This lady said, when confronted with that, "I'm good on ideas but not good with figures."

Often, that is what takes place in the political system. You are good on ideas, because that gets votes, but you lose, I am afraid, the cost-benefit effect because there are booby traps you can fall into; for example, what 1 percent here means 30 years later. You have to pay 20 to 30 years down the road.

I think that is something to think about as we deliberate.

Mr. CURTIS. If you are responsible and you will use all of the technological theory that we have now and the computer, you can put that off.

Mr. HUTCHISON. I think so, too.

Mr. CURTIS. If you ignore it and say we will give increases but won't value it or increase it or this or that, you will underfund it.

Today, you can value these properly and make those decisions.

Mr. HUTCHISON. Of course, Jim, you have to realize you have to come up against a different council, a different board of commissioners, a different Congress, and each group has a different view on it and has to be reeducated. Sometimes you can't get them reeducated fast enough.

Mr. CURTIS. For me, I want the benefit to be 100 percent of final salary, fully indexed. That's the problem.

Mr. HUTCHISON. If you are the beneficiary, right.

Mr. SALISBURY. We will take one final comment from Denny Snook and move to our next presentation.

Mr. SNOOK. With all due respect to the gentleman from North Carolina, it is important here to draw the distinction between on the one side, local and State government plans and plans in the private sector, and on the other side, the Federal Government's plan.

The Federal Government's plan can never be financed on any other than a contemporary relationship between taxes collected and benefits paid, because it is impossible for the Federal Government to create a fund and separate that money from the Federal Government's participation in the economy in such a way that it is not, in itself, a part of the economy.

So while a private sector plan or a local government plan or a State government plan could actually invest it elsewhere in the economy, that option is not available to the Federal Government.

Consequently, the same sorts of funding techniques that are appropriate for other sectors do not necessarily apply to the Federal Government.

Mr. CURTIS. Historically.

Mr. SALISBURY. I would suggest that is a matter of opinion. As the papers presented here today clearly show, the Federal Government, as a matter of practicality, is only denied those things that politically it chooses to deny itself. The larger issue that you are getting at is what if they choose to debt finance it versus raising taxes. I think you are suggesting that in the long term that really is a wash decision.

This is a perfect lead-in to the next speaker, because the next speaker, in addition to having had 20 years' experience in the pension investment management business, also has had unique experience as an elected politician. He served for 4 years in the New York State Assembly. During that period he was a member of the State Assembly's Ways and Means Committee, its Government Operations Committee, and its Housing Committee. As a State legislator he had to deal quite explicitly with issues related to public employee pensions in the State of New York: appropriate funding and investment policy and other related issues. Mr. Jon Fossel is Senior Vice President of the Alliance Capital Management Corporation.

Jon?

III. INVESTMENT IMPLICATIONS OF NEW FEDERAL RETIREMENT PLAN

(Presented by Jon S. Fossel, Senior Vice President, Alliance Capital Management Corporation)

Mr. FOSSEL. In the interest of full disclosure, it is only fair for me to tell you why I am in the private sector. That was not by choice; I actually aspired to come down here in Washington to the House of Representatives and work on the inside of these problems, but the voters of 1982 chose to keep the incumbent and to reject the challenger, so I came back to the private sector.

Mr. KEITH. Did you take any stand on pensions in your campaign?

Mr. FOSSEL. No, sir, except I was for Social Security being maintained forever. So was my opponent; so was everybody else here, as I can figure.

Dallas Salisbury mentioned that I am with the Alliance Capital Management Corporation. I might just tell you a little bit about Alliance Capital. At the firm we manage nearly $20 billion of other people's money, the vast majority of which, some $16 billion, is for corporate and State and local pension and retirement systems.

Our clients include 25 of Fortune Magazine's top 100 corporations, ranging from American Can to Union Carbide and 50 government retirement systems ranging from the California Public Employee Retirement System to the State of New York and the City of New York System.

Here in the Washington area, the District of Columbia Teachers, Police and Firefighters and Judges Retirement Board, as well as the State of Maryland.

Our list of clients and the assets they entrust to our management have grown substantially over the years, in large part because our long-term investment results, contrary to some academic views on the subject, have consistently met or exceeded our clients' expectations and the popular market indices and those of our best competitors.

For example, during the past 10 years, our equity accounts, that is, our accounts that invest primarily in stocks, appreciated on an average compounded rate of 13.4 percent; our balanced accounts, that is, those that use stocks and bonds, 12.1 percent.

During that same time period, the Consumer Price Index rose 8.2 percent; Treasury Bills returned 8.5 percent; and the stock market, in general, depending on which indices you want to use, was up some 10 percent, give or take a little.

My assignment for the remaining 20 minutes or so is to share with you my thoughts on the investment implications of certain proposed changes in the Federal retirement system which are required by the Social Security Act Amendments of 1983.

I should point out that my views do not necessarily reflect the views of my firm, but they probably do reflect a broad concensus of professional investment thinking today. Let me say at the outset that I intend to focus my comments primarily on Senator Stevens' proposed Civil Service Pension Reform Act, not because I necessarily agree or disagree with any or all of it, but, rather, because it is an excellent attempt to crystalize the major alternatives facing the Congress today and their implications.

The need for Congress to address itself to alternatives to the current Civil Service Retirement System is abundantly clear to nearly every interested party. The actions taken by Congress prior to January 1, 1986, unless that date gets delayed, could have a very major impact on current and future participants; current and future retirees; the attractiveness of Federal employment for existing and new workers; the Federal budget and taxes; the U.S. financial markets; and growth in the U.S. economy.

In other words, Senator Stevens' proposal or whatever alternative proposal is adopted will have a very broad and very longlasting effect on each and every one of us, not only for today, but for generations to come. I would like to look at the investment implications from two quite different perspectives.

First, what are the implications of each of the proposed acts' major elements? Among these are: private sector investments, and I would add expanded public sector investments, versus the present sole use of special Treasury issues; the second major element, defined contribution and thrift plan versus the current defined benefit plan; the third major element, some of the structural issues, such as the role of the pension board of trustees or whatever other entity will oversee the new plan; and then last, some of the political and policy issues such as investing for "social purposes."

Second, I would like to comment on the investment implications of the proposed act, or whatever act, in terms of its effect on the major interested parties. I think the three major parties, if we can call them that, are: one, the Federal employees, both current and prospective employees; two, the Federal Government, the employer; and then last, the U.S. economy and our financial markets, and related to that, capital formation, et cetera.

Let me go back, now, to the major elements of the act and explore first the investment implications of utilizing private sector investments instead of the current practice of buying and holding special Treasury issues.

First, let's say that private versus public investments is not the right issue. The right issue, in my opinion, is what investment policy is best suited to providing appropriate retirement benefits to Federal retirees at the least cost to the employer and the current participants and at an acceptable level of risk?

In my opinion, the answer to that question is that most investments, including special Treasury issues, publicly traded Treasury issues, other Federal agency issues, corporate bonds, common stocks, real estate, venture capital and probably other alternatives are appropriate holdings for a retirement system as large and with as long-term a perspective as the Federal Government system is and has.

The proper mix of various investments will depend on the changing mix of the work force; actuarial assumptions; the nature of the plan or plans themselves; the preference, if they have a choice, of the employees; changing economic and investment trends; and the prospective real returns and risks associated with each investment alternative.

The first slide—those of you in the back, if you can't see it, there are still some seats in the orchestra here that, for a small price, are yours.

This slide shows how the investment mix of America's State and local government pension plans have changed over the past 33 years.[1] Some of this change is secular in nature, such as the decline in State and local government bonds.

The reason for that is pretty clear: They were tax-exempt bonds, and they yielded less than the taxable bond. Since they were tax-exempt bonds, they didn't make sense for investments anyway, all risks being the same. It didn't make sense.

Some of the change, and a majority of the change, I think, over the years, is change in market, investment and retirement and retiring needs and conditions.

I point out very clearly that the administrators—this is in the paper. For those of you who do not have one, there are some more copies on the table on the side. All but one of these slides are in the paper itself.

You will note, if you look at roughly the 1975 percent, actually, it started a little before that, through the present period that there has been a substantial increase in use by State and local government retirement systems in long-term Government bonds.

Why? Well, the reason from an investment point of view is very simple: They are more attractive today, given today's interest rate environment, today's stock market environment, today's inflationary environment, et cetera, than they were prior to the Arab oil embargo in 1973. That is to say, those systems have dynamically changed their asset mix to reflect current investment conditions and returns and needs.

I might note, just as a reference point, because I know it is a concern that comes up from time to time, that the total market value of the assets held by these public pension plans currently exceeds some $300 billion.

I might also add that I think they are smart to have moved from stocks to bonds, at least in the more recent part of that period.

A similar chart for private sector pension plans would show a very different asset mix, but similar long-term trends. As the cost of providing appropriate retirement benefits has escalated, plan sponsors and their investment managers, whether they be internal or external, have become more sensitive to enhancing returns while at the same time maintaining risk at an acceptable level. I say acceptable level when talking about risk instead of minimizing or doing away with risk because by definition, a retirement system should have a long-term investment perspective.

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[1] See exhibit 1, p. 150.

Employees and/or employers make contributions over a long number of years, and beneficiaries usually receive benefits for many, many years. Therefore, in order to improve benefits and/or reduce costs through attainment of higher returns, the assumption of some shorter-term volatility and risk—and in an investment sense, they are one and the same—is perfectly appropriate, and I might add, prudent.

The next slide is the one referred to earlier about the midwestern university and long-term investment returns.[2] It is a slide that summarizes the work done by Professors Singfeld and Ebbitson at the University of Chicago and shows what, over the very long term, from 1926 through—actually the end of last year, it is updated now—the last 57 years, which included, if I remember right, two declared wars, one depression and some would say two, more than a dozen recessions, an energy crisis, one presidential assassination and a near miss, deflation, inflation and stagflation; in other words, hardly a placid period.

Yet the riskiest or the most volatile asset, common stocks, achieved the highest return by three times as much per year as U.S. Treasury bills, an ostensibly risk-free investment, which is also virtually in real terms, at least, return free.

The next chart puts that same table you just saw on kind of a long-term chart basis and shows what would have happened, presuming you invested in the entire array of stocks and bonds and Treasury bills and all the other assets available, and didn't try to pick one from the other, what would have happened to that dollar over that time period.[3]

It shows, for example, that $1 put in common stocks at the end of 1926 would have been worth nearly $200 at the end of 1983, whereas that same dollar investment in long-term corporate bonds at the end of 1983 would be worth $11; $7, if in long-term Government bonds; $6, if in Treasury bills.

Obviously, the impact of higher returns has positive significance for employee and employer alike, especially since the purchasing power during this period of the dollar was cut by nearly five-sixths. All those investment alternatives, I might add, offer a return that was in excess of inflation during that time period, or modestly so in the case of Treasury bills.

The graph, however, shows something else as well, and that is, how much more volatile or risky, at least in the short term, return from stocks has been when compared to less risky investment alternatives.

Over this period, the annual return, and in any one year, for stocks ranged from a high of plus 54 percent in 1933 to minus 43 percent in 1931. I think we all would have guessed that that might have happened in 1929, but actually 1931 was the worst year, whereas long-term Government bond returns ranged from plus 30 percent in 1932 to a minus 16 percent in 1946.

All classes of assets measured—and we obviously have missed some major classes here like real estate, for example—all classes of assets measured, except short-term Treasury bills, had at least one

[2] See exhibit II, p. 152.
[3] See exhibit III, p. 154.

10-year period during this 57-year period when both nominal and real—that is, adjusting for inflation—returns were negative.

Every single asset class had at least one full 10-year period when both nominal and real returns were negative.

However, a different picture emerges when you look at a longer-term time period, a 20-year time period. The next slide—you can't see this one real well, and I apologize for that, but it is in the paper that you have—the next slide shows that every class of assets had a positive nominal return for any 20-year period you wanted to look at.[4] That is important to think about. The table also shows that the evidence of higher, long-term returns that is likely to be found in more risky, that is, more volatile assets, is pretty dramatic.

It also shows that over long time periods, 20-year time periods, any 20-year time period, the risk of negative returns from common stocks, which are the most volatile asset, has been historically, at least—and history may or may not be a good indicator of the future—well within acceptable and prudent limits.

In fact, there have been 20-year periods here when the allegedly safest investments lost money in real terms.

There was not one period when either nominal or real returns from stocks, even small stocks, which are supposedly, again, even the more risky types of stocks, were actually negative.

But even Treasury bills and long-term Government bonds and corporate bonds did have, in their worst period, some negative time period. I might add that all of them did reasonably well in most time periods.

Since, as I mentioned earlier, the long-term—those of you who are reading, I skipped a page. I am on page 11 halfway down—a long-term time horizon is appropriate for the Federal retirement system or, for that matter, any retirement system except those that are heavily loaded up with employees who are either about to retire or have just retired. It is my strongly held opinion that a properly diversified investment portfolio utilizing a full array of prudent—and that is a legal and a legislative and an investment and all other kinds of definitions these days—using a full array of prudent investment alternatives will achieve much higher investment returns than an approach that is locked into any one alternative, and specifically, the one that the existing Civil Service Retirement System follows in investment in special Treasury issues.

The higher return, in my view and, I think, the view of most investment professionals, can and should be attained with a minimal increase in long-term volatility or risk. I stress long term because that doesn't speak to any one year, and yes, if someone is about to retire, and it happens to be in the year 1974 and all their assets are in one class of investment, common stocks, and it could be a different class of investment in some other year, as you can see on the chart, that person is going to suffer, but that isn't prudent either, in my view.

The above discussion assumes a passive investment approach. Obviously—maybe it is not obvious to everybody, it is obvious to

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[4] See exhibit IV, p. 156.

me—obviously, active management of segments of the retirement system assets has the potential, at least, to enhance overall returns even further.

An actively managed investment approach, utilizing all investment alternatives, from Treasury bills and bonds to Government agency and corporate bonds to mortgages and real estate and to common stocks, is the approach that, in my view, best answers the question I posed earlier which was, what investment policy is best suited to providing appropriate retirement benefits to Federal retirees at the least cost to their employer and current participants and at an acceptable level of risk.

This, I think, is why you have seen major corporate union and public sector pension plans move to that kind of an approach over the last 10, 15, 20, or 30 years; in fact, to the point that most of them, the major ones anyway, are utilizing an approach that does use all major classes of investment assets and manages that mix as appropriate for returns and for the needs of their system.

The next major question beyond private sector versus public sector investments is the one of defined contribution and savings or thrift plan versus defined benefit plan.

The investment implications of that approach versus the current approach, I think, are fairly considerable in many ways and from many perspectives. The most important investment consideration is the recognition, as was touched on earlier, that in a defined benefit plan the assets and the liabilities are, in essence, owned by the employer or in the case of a Government plan, I guess the taxpayers, ultimately.

That owner, therefore, will realize the benefits of superior investment returns and also bears the cost of inadequate results and/or inadequate contributions.

In the defined contribution plan and a thrift plan, on the other hand, the employee owns the assets and assumes the risks and the rewards of the investment returns actually realized. The major investment implication of a move to defined contribution is that usually employees are offered a choice of investment alternatives and may tailor their investment mix to suit their own personal financial situation and give due credit to whatever their own risk tolerance is.

A younger employee with a high potential for career advancement, higher salary, and higher earnings may wish to have a higher portion of assets invested in common stocks or real estate or some riskier, more volatile, higher potential return asset, whereas another employee who is close to retirement or just risk adverse may wish to have plan assets invested in Government bonds or Treasury bills or guaranteed investment contracts or something of a more conservative, probably lower return in real terms over the long term, as well, type of a plan.

Either individual could have the freedom to change the mix of assets in his plan as personal financial situations change.

Since the employee and the retiree have this flexibility, there will obviously be a need to provide a variety of investment choices. Therefore, the system must acquire, either internally or externally, the necessary expertise to manage, in a professional and prudent manner, an appropriate range of investment alternatives.

Parenthetically, that costs money. Once the major issues of the investment approach and the plan structure are resolved, some of the toughest issues still remain. These are what I would call the structural, political and policy issues.

Maybe I am unduly sensitive to the political issues, because I have been there, too. The Government Operations Committee, of which I was ranking member for 2 years, was the committee in the State Legislature in New York which had responsibility for our retirement system.

Taking the structural issues first, it is clearly in the best interest of all concerned to set up a pension fund board of trustees in such a way as to provide the most professional understanding of pension and investment issues.

That isn't always easy. I mean, sometimes people think it is important to be on boards like that and they really aren't the right people.

There is ample precedent, however, for the establishment of such a board to be found in many States in this country, as well as in a number of multinational employers such as the United Nations.

I had the pleasure, sometimes the pain, of managing the United Nations' pension system for a period of time back in the early 1970's, and if you think the Federal Government has political and policy and other kinds of problems managing a pension system, let me refer you to the United Nations, because that one was something else.

Generally speaking, the board should consist of employee, employer, and political representatives and it assumes a broad, policy-making and oversight responsibility including: investment policy; asset allocation—don't leave that to the investment managers; legal and contractual oversight; and, in my view, hiring of the executive director, a key person. I personally feel that contrary to provisions of the proposed act, the executive director should be hired by the board and not appointed by the President or anybody else, and that employees, both current and retired employees, should have a broad representation on the board of the pension plan itself.

One of the most important structural issues to be faced is whether the fund's assets should be managed by a professional internal staff or by an equally professional external investment manager or managers. There are obviously pros and cons in each approach.

If I could have the next slide, just to confuse everybody a little further, this is what the public employee systems in this country do now; that is to say, the large State funds—looking at the first line—of which there are 70 of one kind or another, 70 percent of them use internal managers; 49 percent of them use outside advisors, but not managers; and 46 percent of them use outside managers.[5]

What that says, it adds up to more than 100 percent, obviously, and that means each one of them does a little of each. I think that is appropriate. I will come to that in a minute.

As you can see, the major funds contract out. I think you have to assume, it doesn't show up on the slide clearly, but in fact, major

[5] See exhibit VI, p. 164.

State funds, and corporate funds as well, contract out management of certain assets, especially the more complex investments, typically real estate or common stocks, and then retain internal management for short-term investment, permanent long-term investment, and other somewhat less complex investments.

Even though I have a bias personally toward professional external management because of the critical importance of attracting and retaining an outstanding investment staff—and I might add, I don't think that my firm would have achieved the kind of results that we have achieved for our clients had we not been able to attract and keep the best people we could find—I believe that a fund as large as the Federal Government retirement system could very well find it cost-effective to perform certain investment functions itself, and in any event, should have—whether they hire external managers or not—should have a highly competent investment professional as executive director and probably as staff members.

Let me move to the political and policy issues. There are a couple of them that I think have important investment implications. In order for the fund to achieve its long-term objectives for its participants, it is imperative that the professional director, the staff and the executive managers, if any, be as far removed from the political influence as possible.

There are too many examples. In fact, I think the FBI is still looking for the guy who managed to talk people into investments that weren't too smart, and he was on their board of trustees. There are too many examples in the recent past where board members or other outside groups or individuals have intruded into the investment process of public funds with quite negative results.

There have been some private funds, too, but the price we all pay in terms of being part of the public sector, at least in terms of visibility, is much higher. That is not to say that such political and policy issues such as "social investing," for example, stimulating the housing market, urban revitalization, do we invest in South Africa, et cetera, are not legitimate considerations for the board; they are.

However, it must be recognized that virtually every investment policy decision has the potential to impact the return and/or risk realized from a fund's investments. Therefore, the board must address these issues with the contributors and beneficiaries clearly in mind. In no event should any board member or anyone else other than those specifically vested with the proper authority have the ability to make investment decisions, specific investment decisions.

The proposed act of Senator Stevens addresses that issue quite properly, in my mind.

Another major policy concern is the possibility that the fund might "control the market" or certain sectors of the market. In my opinion, those fears are wholly unfounded. In the first place, the proposed act provides for a very gradual phase-in of the private sector investments, and if I might have the next slide, this slide shows what the fixed-income markets in the United States look like as of 1983.

Let me just run through a couple of the numbers for you. The total publicly traded fixed-income market in 1983 was a little

better than $3 trillion. To contrast with some of the rest of the capital market, the value of U.S. equities was approximately $1.5 trillion. Foreign equities, if we want to get into investing in overseas companies or countries, was another $1.3 trillion, and none of that includes the equity in real estate.

Add it all up, and no matter how big the Federal system is today and will grow to be, it will still be a very small portion of the total capital markets in the world and even in the United States.

So I think the combination of phase-in, the existing and prospective, because of the U.S. markets' growth, too—if you look at the fixed-income markets alone, in 1973, 10 years earlier, they were $928 billion in capitalization, and now they are over $3 trillion. So they are not stagnant, either—the combination of the phase-in, the current size of the U.S. financial markets, and third, the fact that, in my belief anyway, the assets of the fund should be broadly diversified, makes the issue of control of markets, particularly one managed by prudent investment managers, really a non issue.

It is, however, in my view, logical to conclude—I think, Denny, to the point you were raising earlier—that at least on a supply and demand basis, the yield spread between Treasury securities, in general, and private sector investments, in general, could narrow slightly.

That is to say, rates as on long-term Government securities could rise slightly relative to rates on other securities. Obviously, the net impact of all of that, however, is neutral. That is, rates in general aren't going to change, all other things being equal.

On the surface, to my view anyway, it appears that the multiplicity of structural, political, policy, investment issues, et cetera, that affect the fund's investment approach is so complex and so controversial that it would be very easy to throw up our hands and conclude it is just not worth undertaking any major change.

You must remember, however, that there is a responsibility to current and future retirees that is paramount. Most of America's major corporations, our 50 States, most other major political subdivisions, and our largest labor unions, as I said earlier, have already chosen a course that utilizes modern investment management approaches and, in most cases, private sector investments.

They have done so because, in their view, it is in the long-term best interest of their current and their future retirees and employees.

Now let me take a quick look at three major groups and the impact that some of the things I just touched on might have. It is obviously going to be significant. One of the first groups affected is the Federal employees. For the employee, such a plan as we have talked about, or at least as I have talked about, provides the opportunity for individuals to tailor their retirement program to their own particular individual need and to adjust the investment mix over time to reflect changing personal financial circumstances or other circumstances that might be of importance to them.

Additionally, the contributions of each employee's individual account will be owned by the employee and will be portable in the event the employee changes jobs, and I understand that—and maybe you know what the number is—the average longevity of the Federal employee is not all that long.

So many of them walk away with virtually no benefits or benefits not of substantial value. That is different in some sectors and not different in other sectors.

Also, a defined contribution plan obviously, good, bad, or indifferent, will be insulated from political or budgetary undermining of any kind. That may not be real important today, but there may be a day when that is real important.

While it is true that all investment risks, as well as the reward of investment results, are borne, in that case, by the employee, in any event, it is also true that such plan can provide a low-risk investment alternative. For those employees that are really concerned about those benefits being there, there can be put in place an investment alternative that would provide a high degree of certainty and surety on that front.

Furthermore, as I discussed earlier, it is highly likely that the long-term returns from a professionally managed, well-diversified fund will exceed the return from unmanaged funds only investing in special Treasury issues.

This is not only because returns from other investments will in all likelihood continue to be higher over long time periods—and I believe this is the case. I skipped a slide in the presentation that is in your packet that shows this is not only my opinion; this is the opinion of most major public fund administrators at this point.[6]

But in any event, returns from other investments will, in all likelihood, continue to be higher over long time periods, but equally important because asset mixes can be altered to reflect economic, inflationary and economic expectations.

That is to say, if you have the dynamic ability to change asset mix as public sector and private sector plans have done over the years, you stand in a better position, not perfect, but in a better position to achieve better long-term results than if you are stuck with any one approach for all time, because there are some times, as we will show, when it would be painful to be stuck with any one approach.

The next impact is obviously on the Federal employer, that is, the U.S. Government and its contributors. It is less clear here what the impact is, but nonetheless, in my view, it has the potential to be very positive in the long run.

In the first place, as the fund's assets earn higher returns, the cost of providing the same or even higher benefits is reduced.

Additionally, the plan will have a known and predictable cost. I will put my Ways and Means member hat back on again. It sure was nice when we knew what the cost of something was going to be, instead of having to go back and change the funding of the existing budget when it got blown out of the water, and it wasn't terribly popular or a lot of fun.

The very short-term budget impact may well be somewhat negative, although the presumption that by borrowing the amount necessary to fund the new plan would merely raise Treasury yields to the level of prevailing private investments is totally unsupportable in my view, in the short term, and gives no consideration to the

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[6] See exhibit V, p. 158.

multiplier effect on the economy and tax collections as the consequence of enhancing capital formation.

We could debate whether that gets enhanced or not. I think we could possibly conclude that in some magnitude it does. In my opinion, the net result for the Federal Government will be lower costs, better budgeting, happier employees, and higher revenues.

That is a pretty unbeatable combination. Usually when we do something in government, there is a bunch of losers as well as winners. I haven't found the losers yet in a plan such as we have been talking about.

The implications of steps taken to stimulate capital formation in the United States will have a well-known long-range consequence, which is generally positive. Obviously, moving from an underfunded to a fully funded Federal pension plan, investing in the private sector, in part, at least, would require a large and growing flow of funds impacting savings and capital formation. To the extent that these dollars earn a higher return, which is then reinvested; are matched by further individual contributions in a thrift plan, which comes from current consumption; and Federal tax receipts are increased by stimulating economic growth, then the financial markets and the economy as a whole and all of us should be benefited.

Let me just say in conclusion that I thank the Senate committee and all of you for letting me be here and for listening to what I have to say. I would be happy to respond to questions at this point.

Thank you.

Mr. SALISBURY. Let me start with one. If you were to change the proposal you were evaluating and shift the concept to a defined benefit plan instead of a defined contribution plan, would the outcome change?

Mr. FOSSEL. Well, the outcome, all other things being equal, Dallas, for the employee, presuming that the benefits of that employee as promised are going to be the same in either event, doesn't change.

The benefit, on the other hand, for the employer and ultimately the taxpayer who funds that employer—presuming that my conclusion is correct, that a properly diversified mix of investments earns a higher return over time—is very positive; that is, the cost, ultimate cost to the employer, would be reduced.

Mr. SALISBURY. Larry Smedley?

Mr. SMEDLEY. I was looking at your figures here for the worst 20 years and the best 20 years. You also indicated in your remarks that each of these investments over a 10-year period had a negative real rate of return.

Mr. FOSSEL. That is to say, we could find a 10-year period, not the same period, but when each one of them actually had a negative real return; that's correct.

Mr. SMEDLEY. It seems to me that one should look at it from the viewpoint of the employees and think in terms of a secure retirement. The typical retiring Federal employee probably doesn't have more than around 20 years service; and taking the volatility of these interest rates and rates of return, it seems to me if you had had a defined contribution plan in existence, the net result would have been that a very significant proportion of Federal employees

with this kind of a system would have suffered a very unfortunate retirement experience.

I think it is inevitable from your figures.

Mr. FOSSEL. I guess you have lost me.

Mr. SMEDLEY. Because each of these investments had 10 years of negative rates of return, an employee could have worked during the worst 20 years and picked the least profitable investments, and some would have done so. As a result, there would have been significant numbers of Federal employees that would have had inadequate annuities at time of retirement compared to their preretirement wages. In addition, there would have been no cost-of-living adjustments after retirement. It would have been a very unsatisfactory experience.

The point is, that with the defined contribution plan, the risk is with the employee. That, in itself, is the wrong approach to retirement. When you think of retirement, you think of security so that the employee is certain what he or she will have when they reach retirement.

When you have this kind of a plan, the risk is with the employee and the figures seem to show that a very large portion of them would have ended up with a very unsatisfactory retirement system.

I don't think that is what you want in the way of retirement security. To supplement a defined benefit plan, as labor unions do, with a defined contribution plan or a thrift plan is one thing; it is wrong to make a defined contribution plan the primary retirement plan.

Mr. FOSSEL. That is not an investment issue, and I am not going to comment on that issue. I think your conclusion is correct, and that is that there have been 20-year periods when long-term Government bonds and virtually every other—although with the exception that in 57 years of stocks, and I'm not sure that exception will always be the case, there have been 20-year periods when investment in only one of those assets, and that is a key point and let me expand on that in a second, only one of those classes of assets would have resulted in a negative real return for the employees.

However, if you will look at those 20-year periods, you will find some interesting things. If you look at them in some depth, as I have done, you will find that the periods that are especially negative for one class of assets aren't necessarily the periods that are especially negative for the other class of assets.

Now, in the case of fixed-income investment, long-term investments, the period of 1962 to 1981 was the negative period. That was a period, as you well know, when inflation just took off on the up side. That same time period, however, was one that had a positive return, albeit modest, but nonetheless, a positive real return for common stocks.

Therefore, some mix of those assets, and I don't know where real estate fits in there, but some mix of those assets obviously would have moderated, maybe not eliminated, but moderated that negative real return, and in any case, there was substantial positive nominal return. But your point is well taken.

I can't dispute that. If you want to look at only the worst 20-year periods and you don't want to mix the portfolio now and the diversified portfolio, you are absolutely right.

Mr. HUTCHISON. The point I want to make was in response to the Bankers Trust man earlier. Our experience has been identical to his. The employees do make good decisions. You need to give them the full opportunity to do so.

In returning to this gentleman's inquiry about potential losses, in one large company recently, 45 percent of the employees elected an absolutely guaranteed beta zero investment, an insurance type investment contract; a substantial number of them went to a pure stock fund; and some in between. I think the average employee is a lot smarter than some of us professionals give them credit for. I think perhaps another factor is it maybe makes for a better understanding of what makes this country tick, maybe, for people to have to make decisions.

I would like to leave that comment and be quiet. I think we are looking for too much security and Big Brother security all the way around.

Mr. SALISBURY. I would make a comment. I don't think that contradicts Larry's basic point: If you had a defined contribution system and 90 percent of the people make the right investment choices, there will still be some percentage of the workers who are going to be worse off in a defined contribution setting than they might have been in a defined benefit setting where the employer has absorbed the risk.

It is the reason I asked my first question after Jon finished, of whether advance funding matters. Jon said that it does make a difference whether you advance fund, and it does make a difference where you invest the money. Whereas, I think I heard Denny suggesting that to the Government, it doesn't make a difference because if it's all in special Treasury issues, well, then, what's the difference whether you pay for it now or pay for it later. I think what Jon is saying is, defined benefit or defined contribution, there are investment alternatives to special Treasury issues.

Mr. FOSSEL. Let's get political about it. As an elected official, which I was for a short period of time, I would rather appropriate money out of the budget to fund a retirement plan for employees—translation, voters—than I would appropriate money out of the budget to fund increasing the deficit and the interest expense of the State of New York or the Federal Government. One is politically more attractive than the other.

Mr. SALISBURY. Comment at the back?

Mr. HATCH. Morgan Hatch with Loomis Sayles.

Jon, I also am in the same business you are. I would like to make one observation. We are fairly deeply involved in State and local funds, and there is one very major negative that falls out of the attempt to try and keep costs known and constant and predictable, and that is, the accounting of public funds, State funds, whether there is an artificial distinction drawn between realized losses and unrealized losses that, with very, very few exceptions, public funds account on a cost basis, a market to market for stocks, but generally not for fixed income items. That has had more of a negative impact on the investment performance, probably, than the actual investment manager's own expertise, and if there is one thought I would like to leave, it is that any public fund adopt an accounting mechanism that does not impede the realization of losses which

have actually occurred in the marketplace and that just have not been actually realized.

It causes investment managers to do more things that they should not do than probably any other single structure.

Mr. FOSSEL. I think that point is very well taken. As you well know, a handful, and I think it is an increasing trend of public systems, are moving toward looking at their assets in exactly that way.

Mr. DELQUADRO. Dave DelQuadro, Congressional Budget Office.

I want to follow up on special issues and investment as it relates to the current Civil Service Retirement System, and as it relates to that system being on budget. It is not clear that the interest rates for special issues have to be based on the Government securities' rate. The Congress, if it so desires, could establish a rate for special issues that is tied to any number of different indices, whether it be the S&P—Standard & Poor's—index or the Value Line index or what have you.

I think it is important to try to figure out—within the context of the existing Civil Service Retirement System and the fact that it is on budget—what that change might mean.

I think it means two things: First of all, the Civil Service Retirement Board actuaries can use the fact that Civil Service assets are generally invested in special issues—and are only invested in U.S. securities—to rationalize, if you will, a relatively low real rate of return. The real rate of return on so-called dynamic actuarial valuations, such as those under Public Law 95-595, is 1 percent above inflation, a 1 percent real rate.

The Federal Reserve Board has a plan that is nearly identical to the Civil Service, with the major exception of investment alternatives. The FRB can invest in any asset class—stocks, U.S. securities, or private sector bonds. The actuaries that do the Public Law 95-595 valuation for the FRB system assume a 2½ percent real rate. That is a rate of return on investment, 2½ percentage points, above inflation.

Now, what does that mean? It means that the 36½ percent CSR accrual charge—which is not reflected in the current budgetary accounts, but which is available—would be reduced to about 25 percent if, in fact, the 2½ percent real rate were used rather than the 1 percent real rate. So it suggests, at least, that an unrestricted policy for Civil Service retirement would reduce the accrual costs, the entry age normal costs, from 36½ to 25 percent of pay.

But it doesn't mean that if you went to a FRB index or a S&P index that you would change the timing of Civil Service retirement benefits, the amount of Civil Service retirement benefits, or the liabilities that the Government and the taxpayer are bearing. For example, suppose you tied CSR interest rates to the rate of return realized by S&P 500 stock and as a result CSR assets increased by $10 billion more in fiscal year 1983. Presumably, all you would be linking is the rate of return, and there would be no money going out of the U.S. budget.

You would then establish the rate on special issues based on the S&P index, not on the Government securities' market rate in the month prior to the investment of CSR assets, which is current law.

So now what is going to happen? It means that you are going to have $10 billion in budget authority. It doesn't mean you are going to increase outlays. It doesn't mean that benefits are going to change, it means $10 billion more income—budget authority—and it means a commensurate increase in the gross national debt. One can argue whether or not this convoluted linkage between the existing finance in the Civil Service Retirement System and this 36½ percent accrual cost is an appropriate or inappropriate bridge. But the fact of the matter remains that the Civil Service Retirement System is confusing.

Its financing is misunderstood by most of us. It is not something that has an immediate effect on the liabilities the taxpayers are feeling in their pocketbooks. It is not clear. I'm not discussing this with regard to new Federal pension plans because I want to keep it within the context of the existing CSR system, something that is understood and that is available with regard to looking up numbers and looking up assumptions.

I think that the thrust of this is basically the following: You have to distinguish between questions relating to alternate policies with regard to CSR investments and their effect on the budget, and questions with regard to what happens to the Government as a maker of social policy, and then finally with regard to the economic situation. If you take this a step further and you say, all right, now, instead of determining the rate on special issues as though we have invested in private instruments, private securities, equities, what if we actually went ahead, as the Grace Commission recommended, and actually invested CSR receipts in private securities. This would require the Government to generate funds for investment, presumably by selling U.S. securities to the public. As a result, the public is going to have the option of buying more Government securities at a given interest rate.

Then we, as a Government, are going to take those moneys and invest them in the private sector. I think it is clear from the discussion that you could anticipate, over the long term, a higher rate of return in those private instruments, in those private securities, than the U.S. securities' rate of return.

But is that an appropriate way for the Government to make money? This is an additional consideration on top of what is happening to the economy, on top of what is happening to the investment savings relationship, consumption taxes, and everything else. The fundamental question is, if you believe that by investing in these private securities the Government is going to generate receipts, do you want the Government to raise revenue in that way? I don't think that question has been addressed.

Mr. SALISBURY. I will note that one ground rule of these meetings that I think the committee gave to the authors is that they weren't to be discussing the current Civil Service Retirement System, that this discussion is supposed to totally be focusing on the new Civil Service Retirement System for new hires that will come about as a result of the 1983 amendments and that that was to be their perspective and they were not to get into a discussion of the current Civil Service Retirement System because that is viewed as a different entity and a different animal.

I think that I don't disagree with anything you say, David. But I do note that they were explicitly told to look at the future relative to a new system, not to the current Civil Service Retirement System.

Denny?

Mr. SNOOK. Nevertheless, I think David DelQuadro restated a lot of what I was trying to get at earlier in a very coherent fashion. Let me ask Mr. Fossel. Given that it seems that you are saying, quite correctly, that the Federal Government could perhaps receive a return on investments made in the private sector, where it would raise the money for these investments is from one of four choices. It can either raise taxes; it can cut other Government spending; it can borrow it; or it can simply print the money. Which of those four would you favor?

Mr. FOSSEL. You can't look at it as a marginal expenditure. The Federal Government is financed by some combination of all of those methods presently. Unless every Government expenditure is regarded only as a marginal expenditure, which also can be funded by, in this case in the present fiscal situation, by either printing more money or by going deeper into debt, then you can't really hack it that way. I think also, I don't prefer debt, and I don't prefer taxes, and that is a personal opinion. That is neither here nor there. It is an obligation of the Federal budget, like every other dollar that is spent by the Federal Government for whatever is an obligation of that total budget that is funded in total by that budget, however the funding is arrived at.

Don't make the mistake, however, of assuming that the environment in which we operate economically is a static environment. If, in fact, you would accept that capital will be formed in some part anyway because of delayed consumption, not only by taking savings and moving them across the checkerboard, but if you accept that capital will be formed, then you also should accept that that has a positive economic impact and that that economic impact has positive revenue/tax receipt implications for the Federal budget.

Don't assume, in the long run, then, that by taking $10 billion and investing it in private sector investments of one kind or another that that is a total loss of current revenue of $10 billion. That is, in fact, not true.

Mr. SNOOK. I make no such assumption.

Mr. FOSSEL. OK.

Mr. SNOOK. I would agree that if the Federal Government invested, and we will use the figure $10 billion, that it would have now an asset of $10 billion that may generate revenue in the future. It seems, though, that you imply that that in itself is a worthwhile public policy of the Federal Government, to invest some amount of money, we will say $10 billion, in the private sector.

What I want to know, though, is would you think that is a sound Government policy if it was proposed independent from any issues in Civil Service retirement?

Mr. FOSSEL. I don't mean to imply anything. All I mean to do is state what I think the implications of such an investment would be, and I think they would be to have higher returns, and I think they would be to have a higher positive economic impact in the long run on capital formation and growth in the U.S. economy.

That is a policy issue as to whether or not the Federal Govern-

ment thinks that that is something they ought to do. I think that is the impact. I make no value judgments one way or the other.

Mr. SNOOK. The impact of it though, you agree, is that if the Federal Government invested $10 billion in the private sector, it would hold an asset of $10 billion, but nonetheless, it would have to invest the $10 billion as an outlay from the budget. That is an operation which could be conducted, if it was desired public policy, independent of any decisions that are made with respect to retirement policy. If it was thought to be sound public policy to cut Federal spending or to raise taxes or to borrow for purposes of investing in the private sector, that issue could be debated directly, and independent of any issues in retirement.

I would suggest that with respect to retirement, the question remains how much your benefits are to be, now and in the future, and in what way those benefits would be paid, partly by the Government and partly by employees, recognizing that the fundamental exchange that is taking place is a flow of production from those who remain working to those who will be retiring. That exchange is contemporary now and will remain a contemporary one in the future.

Mr. FOSSEL. I guess I would assume, however, that if a higher return is earned than that $10 billion, that in time, that higher return either accrues to the benefit of the employee—be it present and retired, retired, ultimately, or directly in a defined contribution plan, or indirectly in a defined benefit plan—because it gives the employer the ability, all other costs being the same, the ability to pay higher benefits to the employee if the return on that benefit is higher.

Mr. SNOOK. Only in the sense in which the decision is made that it is sound public policy, as David DelQuadro pointed out, to raise revenue by investment in the private sector. The decision of whether to pay higher benefits has to be conducted separately.

Mr. FOSSEL. I think they are close, and they are related.

Mr. SHANEFELTER. I would like to try to clarify.

What I heard you talking about was the responsibility of the Government as an employer, and what I heard the recent discussion to be was on the function of Government as a whole, vis-a-vis its roles as the employer. Would you change your perspective if you were discussing the perspective of Government in the larger role or would you keep it the same when your paper discusses the Government as the employer?

Mr. FOSSEL. My paper specifically, and my remarks specifically, before we got into questions, specifically focused on the implications for the Federal Government of a given investment approach and for the Federal employee of that approach. It had nothing to do with whether or not I thought the impact of taking Federal retirees or potential retiree dollars and investing in the private sector was good, bad or indifferent. I hadn't really thought much about that. I kind of have mixed emotions on that. Sometimes I think it's good, and sometimes I think it's not so good. So I really don't know the answer to that question, and I wasn't addressing myself to that question.

Mr. SALISBURY. Yes, Hastings.

Mr. KEITH. To keep with public employee pension systems, you mentioned, as you went through your script here, that there was

something which you didn't agree with that had come out in the script, just as you got to the end of it. You said, "I'm not sure I said that."

Mr. FOSSEL. I noticed that was a typo, and I used defined benefits instead of defined contribution. If you can refer me to specifically where I was?

Mr. KEITH. I think you were on page 19, but in any event, I can make mental note of that. I do have a question with reference to something of substance. You eliminated real estate.

Mr. FOSSEL. I take it back. I think I misspoke when I said I had misspoken. What I referred to is, it says in that second paragraph, "While it is true that the investment risk as well as the reward of the investment results are borne by the employee in a defined contribution plan."

That is correct the way it is. I think I might have looked at that wrong when I said it. That is correct as it is written, notwithstanding what I might have said.

Mr. KEITH. Thank you. My question has to do with just real estate. You specifically excluded it from your thoughts. I would just like to suggest that the most important investment that one normally makes is in one's home. It constitutes a built-in hedge against inflation and historically has been better than any of the investment options to which you made reference, I believe. Would you comment?

Mr. FOSSEL. I would accept, in large, your conclusion. His conclusion was that long-term returns on real estate, or at least in home, residential real estate, have been superior to long-term returns in virtually every other asset. I think there are other exceptions, probably small stock return was greater than in real estate. The problem with that, however, is that is fine, so long as you don't happen to live in New Hampshire textile towns in the 1940's, or in waste disposal sites in Buffalo in the 1970's, or possibly in the energy belt in the 1980's and 1990's, and own only one piece of real estate in only that one nondiversified area. That would be a very painful investment to you. If you own diversified real estate, then I think your conclusion is correct.

Mr. KEITH. I think from a social point of view, the north will survive, will revive or whatever the phrase was.

Mr. SALISBURY. The north will rise again.

Mr. KEITH. Thank you.

That the fact that you have to take those factors into consideration causes mobility within our economy and our society that is, it is in our overall best interest.

Mr. FOSSEL. I am just concerned about anyone's investments being too heavily concentrated in any one type of asset or any one asset within a type of assets, because that is risky.

Mr. KEITH. Those are the cats and dogs.

Mr. FOSSEL. If it is your own house, you never think of it as a dog, but it could be when you try to sell it.

Mr. SALISBURY. Mr. Hutchison.

Mr. HUTCHISON. I am confused about the questions coming from the right hand side over here about where this money is going to come from. I always thought when you talked about compensation, part of it was deferred and part of it is immediate. If you talk about the best retirement plan for the Federal service people, it

will be an employee cost, regardless of how they have to raise the money. Hopefully, the day is coming where we will be paying it out of taxes and not out of a deficit account. I don't think the method really enters into this discussion, does it? I am a little bit lost to understand where they are coming from on that point.

Mr. SALISBURY. I would refer that to those who were speaking.

Mr. HUTCHISON. Maybe I better see them at the break.

Mr. SALISBURY. It is likely to be salary offset. I would agree.

Mr. CHANG. I think the real issue still comes back to whether you put the pressure on the current generation of consumption and productivity or do you put it on the next generation's productivity. However you do it, if you follow through every single alternative that you mentioned, if you cut other spending, of course, that is what it does; funding has put pressure on Government spending and cutting down the use for current productivity. If you increase taxes, we don't believe that reduces consumption in the private sector. That is, taxes on the private sector. If you go borrow, unless it is taken out from some other sector where the money is being loaded for consumption purposes, of course, you are not putting any pressure on productivity, but on other consumption.

I think we can go through every single one of them, if we had a little more time, and see that investing currently in a special Treasury issue, whatever investment return that may be, is really putting the pressure on the next generation's productivity, because all you are really doing is allowing that payment to come in at a later generation. It does not have any effect on the current productivity, and it is as if it had been funded.

Mr. SALISBURY. I think both your comment and Gray's comment relate to who should pay for pensions and how much. Really, the question is where does the pension fit into the total compensation package, and what do these costs mean. Ken Keene, who is exceptionally well written and experienced in this field, will be focusing on these issues.

AFTER RECESS

Mr. SALISBURY. I think we will get started. It looks like people have had a chance to find their way back.

The next presentation, as I noted, is on who should pay for pensions and how much. The presentation has been put together by Kenneth Keene, Senior Vice President and Director of Johnson & Higgins in New York. Ken co-manages the benefit consulting operations for Johnson & Higgins worldwide, Johnson & Higgins being a large U.S.-based international firm that provides, among its activities, benefit and compensation consulting.

Ken joined Johnson & Higgins in 1971 and has been in his present position since 1972.

Previously, he headed the group pension division of a major New York insurance company. It is always interesting in these introductions. They never really mention the names of their previous employers. I never know why. A Phi Beta Kappa graduate from the University of Florida, Ken is active in many benefits-related organizations, has published very widely, and is very well informed in the area.

Ken?

IV. WHO SHOULD PAY FOR PENSIONS? HOW MUCH?

(Presented by Kenneth K. Keene, Senior Vice President and Director, Johnson & Higgins)

Mr. KEENE. Thank you, Dallas.

It was Metropolitan Life, and I did not receive a vested benefit. Maybe I can work for the Government.

Slide 1

Who Should Pay for Pensions?
How Much?

Who should pay for pensions? How much? This can be restated—who pays the bill and how, and should it be cash up front or a charge to the future? In looking at this entire question, there are several central positions you might take relative to the costs. One would be what kind of plan—defined benefit, defined contribution, or a combination of the two? How large should the benefits be over and above Social Security benefits? How should the benefits be tied in with Social Security? What provisions should be made for comparability of benefits? How about protection against inflation, post-retiree protection? And as was discussed earlier today, there are questions of advance funding for the benefits and the investment and control of the assets.

Slide 2

PENSION COST PER EMPLOYEE
Fortune 500 Companies
Employer Contributions

[chart]

Year	1978	1979	1980	1981	1982
Cost	1111	1243	1329	1412	1489

Source: "Funding Costs and Liabilites of Large Corporate Pension Plans." Johnson & Higgins, 1979-1983.

Here this chart shows, for the Fortune 500 industrial companies based on surveys Johnson & Higgins does annually, what the companies are paying on a per capita basis towards the cost of pensions. In 1978, the cost was $1,111 per employee on average, and that has escalated to $1,489 in 1982.

Of course, you had the effect of inflation in between. On a real basis, it probably hasn't changed all that much.

But this translates for the Fortune 500 companies to, in 1982, 6.4 percent of pay. If you took the financial and other service companies that Fortune regularly reports on, you will find that the percentage will be somewhat higher, perhaps more like 7, 7.5 percent. That may be a better measure of comparability relative to the Civil Service retirement issue.

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Slide 3

PENSION COST PER EMPLOYEE
State and Local Governments
Employer and Employee Contributions

[chart]

Year	1978	1979	1980	1981	1982
Employer	1229	1368	1546	1744	1879
Employee	513	541	570	635	700
Total	1742	1909	2116	2379	2579

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Source: "Pension Facts--1983 Update." American Council of Life Insurance.

What has happened to the pension cost per employee for State and local governments? Well, in 1978, the employer, on a per capita basis, paid $1,229, moving up to, in 1982, $1,879. The increase in cost has been much larger than for the private sector. The employee cost has also gone up, although in dollar terms, relatively minor.

Slide 4

PENSION COST PER EMPLOYEE
Civil Service Retirement Systems
Employer and Employee Contributions

[chart]

Year	1978	1979	1980	1981	1982
Employer	3987	4707	5684	6632	7196
Employee	1154	1262	1349	1465	1549
Total	5141	5969	7033	8097	8745

Source: "Pension Facts--1983 Update." American Council of Life Insurance.

We next move to the Civil Service Retirement System. There, depending on how you account for it, but at least in this method of accounting, the employer cost—employer cost here would be the agency involved plus the additional costs out of the budget—in 1978 was $3,987, moving up to 1982, $7,196. The employee cost has gone from $1,154 to $1,549. The employer cost, percentage wise, going from one year to the next, has increased at a far greater rate than would be true in the private sector or would be true for State and local governments.

Slide 5

PENSION COST PER EMPLOYEE
1982 EMPLOYER CONTRIBUTIONS

[chart]

Fortune 500 Companies (1489)	State & Local Governments (1879)	Civil Service Retirement (7196)

Next we attempt to chart this, showing the 1982 results. In this instance, showing the employer contribution for the Fortune 500 industrials, $1,489; State and local governments, $1,879; Civil Service, $7,196.

Of course, in the Civil Service system, people have not been covered by Social Security, so some adjustment in these figures should be made for that. If we take the maximum which pertained in the

year that the employer would have contributed towards Social Security and for comparability, take that out of the Civil Service figure that you see on the chart here, you still end up with a figure of $5,446 per capita, which is three times the comparable figures for the public and private systems.

I should also make mention that with respect to the private system cost figures, one being 6.4 percent of pay for industrial companies, the major companies, by and large, do provide for supplemental plans, savings plans, profit-sharing plans, and now the 401(k) plans.

So if you factor those in, probably the 6.4 percent, what employers are contributing, would go up to the range of 8 to 9 percent in the aggregate.

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Slide 6

Are benefits
- **Adequate?**
- **Reasonable?**
- **Equitable?**

.....

The questions to be addressed, among others: Are benefits adequate, reasonable and equitable? In terms of equitableness, you have measured against what? You have to look at what counterparts would provide in other public sectors and in the private sector. The question of fairness is between the CSRS as it now exists and as it will be formulated for new hires. And you have the question of fairness as between the basic Civil Service Retirement System as it affects regular Government employees or as it may affect the people in the military or TVA or judges or whatever. Of course you also have fairness issues in terms of different salary grades that exist in the Civil Service and most importantly, fairness that might be called for if you are looking at different generations of civil servants and different generations of taxpayers.

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Slide 7

Are contributions
- **Adequate?**
- **Reasonable?**
- **Equitable?**

.....

That is on the benefits. You have the other side of the coin, and that is on contributions. Are contributions adequate, reasonable, equitable? In this area, I would only suggest that for any benefit structure that is proposed, it should be studied—as was touched on several times this morning—only in the context of the dynamics of

the future. We should try to get our best guess as to what the future will look like in terms of demographics, in terms of economic conditions, inflation, in terms of possible changes in this new system which is to be designed, and so forth, because the system designed at the outset would not necessarily be the same system that will exist 20 years later.

So we should try to anticipate some of those changes and do our best job, and I'm not talking about playing games here. I'm talking about doing our very best job of trying to figure out what the future will look like, and then trying to determine what the cost implications of a particualr program will be in that emerging future.

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Slide 8

FACTORS WHICH AFFECT COST LEVELS

- Benefit types and levels
- Inflation
- Investment return
- Demographics and longevity

.....

Factors which affect cost levels. Obviously, you have benefit types, you have inflation and how sensitive the benefit structure will be to changes in inflation. If you do advance fund, what kind of returns will be obtained on the investments and what are the risks associated with those various investments? How will demographics of the work force and the retiree force appear in the future? And with increasing medical advances, what will be the impact of longevity? Obviously, as longevity increases, the first question that creates is, how much will the additional burden be on the pension structure; but another question is, how long should people remain in the work force?

Social Security, for example, has now been retargeted to provide, ultimately, for normal retirement at average age 67. People may well have to, particularly with greater longevity, extend their working years, which is in direct contradiction to the retirement experience that this country has had in the last 15, 20 years.

On inflation, the Civil Service retirees have enjoyed full inflation protection. In fact, some will contend that it's been redundant inflation protection. But can we really afford this, going down the road many years in the future? Bear in mind the claims of different generations of taxpayers and workers versus retirees on the finances of any such system.

One of the most expensive features of the current Civil Service system is the fact that employees with 30 years of service can retire as early as age 55 on full unreduced benefits. This kind of liberal plan is virtually unheard of in the private sector. I think

there has been more than one study which suggests this has increased very substantially the overall liabilities of the program. Indeed, the Civil Service employees have taken wide advantage of that particular feature of the system.

They have often coupled that with the ability to double dip under the Social Security benefits structure, by taking work in Social Security-covered employment thereafter for some minimum period of time.

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Slide 9

UNREDUCED
EARLY RETIREMENT BENEFITS

Age	% Increase in Costs
55	138 %
60	58 %
62	32 %

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Source: Mortality: Group Annuity Mortality 1971--Male. Interest: 6%.

However, looking at that particular issue, for a person retiring at age 55, according to an analysis that we did, the increase in cost is 138 percent compared to what the cost would be if that benefit had been actuarially reduced back from age 65, as is common in the private sector. If a person retired at age 60, the increase in cost would be 58 percent compared to the actuarially adjusted benefit in the private sector, or at age 62, the cost increase would be 32 percent.

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Slide 10

COST OF LIVING ADJUSTMENTS

	% Increase in Costs for benefit beginning at age	
COLA	55	65
3 %	26 %	21 %
6 %	65 %	51 %
9 %	127 %	93 %

.....

Source: Mortality: Group Annuity Mortality 1971--Male. Interest: 12%.

At this stage, we haven't even looked at the impact of the cost-of-living feature, but let's look at that for a moment. For the full cost-of-living adjustment, we have come up with an analysis here which suggests that if the cost of living goes up by 3 percent per year and a person retires at age 55, then that feature in the plan, if it is in the plan, adds 26 percent to the cost. Or if the cost of living went up 6 percent, it is more than a simple proportional increase, it goes up by 65 percent. If the cost of living were 9 percent—this is a 9 percent continuing cost of living, it's not just in one year—then the cost would go up 127 percent.

Now, of course, if you were to combine these kinds of figures with the figures in the preceeding chart, you can see there is a very powerful multiplier factor at work there.

Slide 11

ISSUES WHICH AFFECT COST LEVELS

- Comprehensive compensation policy
- Protection against inflation
- Funding policy
- Investment of funds
- Support of old CSRS

Issues which affect cost levels. You have the issue of should we look at total compensation paid to the Civil Service worker and then figure out how much of that should be in cash compensation and how much should be in fringe benefits. That could be a major issue, or you could simply say, well, that is something to be studied for another day. Let's just look at the redesign of the pension system for new hires.

You have the question which was touched on a few moments ago of protection against inflation. Can we, going down the road, provide full protection against inflation for Government employees where, in the private sector, for some reason, we have not been able to afford that?

Funding policy. Should we contribute more today so that we will not have to contribute as much tomorrow—the real question of advance funding versus pay-as-you-go.

If the answer does come down on the side of advance funding, then where will the funds be invested, and by whom? And do you set up a structure with respect to new hires which, some way or another, will have subsidy factors built into it so that you start to pay off some of the liabilities already incurred on account of existing Civil Service employees and retirees.

Slide 12

How should costs be divided between contribution sources?

- Employer
- Employee
- Investment return

Division of costs among contribution sources. You have the employer which, in this instance, could be the particular Government agency itself, or it could be, generically, the entire Federal Government. Then you have the employee, who will now be paying Social Security taxes and receiving Social Security benefits. Then, if you have an advance funding system, there are investment returns on the assets that are accumulating.

Looking at the employee contribution, you have the question, should be it a mandatory contribution, which is to be matched in some way or another by employer contributions? Or should it be voluntary? You also have the question of whether any employee contribution should be out of post income tax funds or should it be before tax, as can now be done in the private sector through 401(k) plans?

Slide 13

DECISIONS

- Pension policy or compensation policy
- Flexibility of the pension system
- Benefits which can be afforded or costs sufficient to provide benefits
- Allocation of cost burden to sources

You have decisions, as I touched on. Pension policy in a vacuum vis-a-vis overall compensation policy? What kind of flexibility for the pension system? That gets into employee choices and whether or not they can impact on those choices through greater or lesser voluntary contributions. Whether the benefits are affordable? Whether the benefits are adequate, and of course, how to allocate across different generations.

We also should be mindful of what impact design of a new system will have on what happens with other public plans and on what happens with private sector plans.

In closing my particular remarks now, I would like to propose not as a plan design, but just an idea, a specific idea, and give you the results of it. That is, suppose you had set up what in the private sector is a 401(k) plan. Suppose you set it up where the employee can contribute up to 6 percent of pay and on the first 2 per-

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cent that the employee contributes, the Government or the Government agency would match that dollar for dollar. Then, on the next 4 percent that the employee contributed, the Government might match that, let's say, 50 cents on the dollar.

This would all go into the employee's account. The employee contribution would be made from before tax dollars, to make it a little easier on the employee, less so on the Federal Government. But have that as a core plan. This is a defined contribution plan; it is a core plan, and much as was discussed this morning, the employees would opt, through the officially recognized investment vehicle, to go into fixed-income investments or equities or whatever is available. I would have to think the investment choices should be a limited number of choices, not a huge number of choices.

Then we superimpose on that a defined benefit plan. If the employee elected to make the maximum contribution under the 401(k) plan, the defined benefit plan would guarantee certain end results regardless of the investment results of the 401(k) plan.

So you have your cake and eat it too, as it were. For that defined benefit plan, you might make it something like 1.5 percent of final average pay for each year of service, with some inflation protection. The inflation protection I would throw in would be to take the actual rate of inflation in retirement years and maybe subtract something like 3 percent from that each year. In effect, the first 3 percent of inflation for the year is on the employee at the employee's risk. This is comparable to what is happening on an ad hoc basis in the private sector.

Then we put that together with the 401(k) plan but say, OK, on the 401(k) plan, we will only use half its value at the point of retirement to provide this minimum defined benefit plan. The balance to pay for the defined benefit plan, if there were any further liabilities there, would be paid as in a regular defined benefit plan. For the defined benefit plan, the funding requirements would be a lot less than would typically pertain to a 1.5 percent final pay plan, because some of the formula is really being funded through the defined contribution plan.

Based on rough figures, if a person entered such a plan at age 30 and started out at $20,000 pay—and certain economic assumptions are involved in this—in looking at the question of adequacy, if you put these two plans together, at age 65 that person could have a benefit which would replace 128 percent of his then spendable income; that is, the net replacement ratio, after adjustment for taxes, would be 128 percent.

And that includes Social Security, by the way. If we took somebody starting at age 30, but with a starting salary of $35,000, that person would have a replacement ratio of 120 percent. Now, obviously, that replacement ratio would deteriorate in an inflation scenario as you move further into retirement, because you would be losing as much as 3 percent a year in retirement, losing that much purchasing power. But if you started out with redundancy at the point of retirement, then you would probably have pretty good protection for most of your retirement life.

That's just a thought.

Mr. SALISBURY. 128 percent. Not a bad benefit.

Comments or questions?

Andy?

Mr. RUDDOCK. Andy Ruddock, National Association of Postal Supervisors.

Mr. Keene, in your early comparisons of cost between Government and the private industry, what were you commenting on as cost?

Mr. KEENE. The cost is what, in the private sector, companies are actually contributing. In the case of the Civil Service, it's something akin to the 36.5 percent of pay figure that was referred to earlier today.

Mr. RUDDOCK. So there's an element of apples and oranges in there?

Mr. KEENE. Let's put it this way: There is some element of that, but if Civil Service were funding on retirement plan principles, I would say it's not too far off the mark. If anything, the Civil Service cost would be understated.

Mr. RUDDOCK. Still, the increase in Government cost—I think the period you referred to there was something like 1978—that includes the period up until 1980 during which the Government wasn't even paying the equivalent of 100 percent interest on the unfunded liability, which is a Government debt. So you have included in that a period in which the Government's funding was being improved, which makes it look like the cost was growing. I don't think there was that kind of an increase in cost in that period.

Mr. KEENE. I would just simply say that I agree with you that there is an element of apples and oranges in those particular comparisons, but I also would repeat that if the Civil Service system were funded on retirement—on private plan principles, on the ERISA principles, let's put it that way—then those costs would be understated, probably.

Mr. SALISBURY. Denny Snook, you wanted to comment on that?

Mr. SNOOK. I have two. One, the comparison you did earlier about the ratio of retirement costs to the number of employees for the Federal Government and for State and local governments: During the years that you showed there, Civil Service had an increase in retirees because of its rapid growth in employment during the World War II period, an employment which leveled out and has remained roughly level for the last 15 years, whereas in that same period of time, the number of State employees grew quite dramatically. So that, in part, explains the difference in the dollars per employee for retirement costs.

On this other, the question of whether or not comparisons can be made to private sector plans: Would you agree that the proper comparison to make would be to apply the provisions of a private sector plan, such as the one that you have outlined, to the Federal Government's demographic profile using a consistent set of assumptions to evaluate them both?

Mr. KEENE. I would agree with that, yes.

Mr. SALISBURY. Jim Storey.

Mr. STOREY. Jim Storey, Chambers Associates.

Regarding the costs you displayed for the Fortune 500 firms, I was wondering if those cost figures include the costs of the ad hoc

COLA's which were made during that period, which were fairly substantial since those were the years of double-digit inflation?

Mr. KEENE. It would include those costs. However, most private firms still amortize those costs when they grant the COLA's, so the impact on any single year is not all that significant.

Mr. SALISBURY. Helene Benson. Do you have a question?

Ms. BENSON. Helene Benson, Professional Managers Association. I have one question and one comment. The cost does not include the cost of Social Security, does it?

Mr. KEENE. No, that is correct.

Ms. BENSON. Since CSR is equivalent to Social Security plus the private pension plan and any other pension-like plans, you need to include Social Security costs.

Mr. KEENE. What I did, though, I did show the effect of backing out the maximum effect of Social Security from the CSR. That was generous to that comparison.

Ms. BENSON. My other question or thought is that an imprudent investment in a defined benefit plan doesn't necessarily specifically affect an individual's particular retirement benefit. But it does if it is in a defined contribution plan. But in the private sector, fiduciaries are personally liable for imprudent investments, so the plan participants have some recourse. How would this work if Government went to a defined contribution plan? Even though the participants can designate types of investments, they're still not going to be picking particular investments, so it's possible that there would be imprudent investments. How could there be something comparable to the personal fiduciary liability now existing in the private sector plans?

Mr. KEENE. Let me try to answer that by first saying that there can be a very large difference between an imprudent investment as legally defined and a lousy investment.

Ms. BENSON. I know.

Mr. KEENE. There are plenty of lousy investments out there and plenty of lousy investment opportunities. I would think that the fiduciary could be selected for a Government plan just as easily as for the private plan. I don't see any essential difference there.

Ms. BENSON. There could be personal fiduciary liability?

Mr. KEENE. I suppose you could do that, yes, although I would have to say that for the 10 years, approximately, since the passage of ERISA, there have been virtually no suits of major consequence on the matter of fiduciary responsibility.[1] I think it is kind of interesting.

Mr. SALISBURY. Yes?

Mr. GALLEHER. Rick Galleher, representing FAIR.

On your statistics on cost, the point that Dave DelQuadro made earlier was that the actual cost of the Federal retirement system is about 25 percent instead of the 36.5 percent figure you used. If you assume a more reasonable return rate, resulting in a 25 percent payroll cost figure, the total cost figure for Federal sector workers declines to $4,929, and then if my calculator works correctly, if you add in the costs for Social Security, both the employee and the em-

[1] EDITOR'S NOTE.—The Department of Labor has brought several suits on the matter of imprudence.

ployer contribution, that would add about $3,500 to your Fortune 500 pension cost figures.

If you assume a company thrift plan with at least a 3 percent matching rate, the Fortune 500 pension costs increase to $4,400. The net impact of these assumptions results in Fortune 500 average pension costs of $5,899 as compared to an adjusted Civil Service retirement figure of $4,929. I think it is very important that we focus on the magnitude and possible distortion in the numbers that have been presented in your oral presentation today.

Mr. KEENE. I'm not proposing those numbers as being the be all and end all, but I think you have to go back to commonsense. Can you, in a commonsense fashion, say that the Civil Service Retirement System is less liberal than what pertains in the private sector? All your commonsense tells you that cannot be the case.

Mr. GALLEHER. What I am trying to do is to make sure that real numbers are presented and looked at, and that we do not create a public record of distorted cost data. Therefore, I am asking you to consider my adjusted statistics, based upon your own presentation. To reiterate, if you had not excluded Social Security and if you had adjusted for the effect mentioned by David DelQuadro, you would actually have shown lower cost in the Federal Civil Service system than for Fortune 500 average pension costs.

Mr. KEENE. I have seen—and when you are dealing in numbers you can come up with all kinds of answers—one analysis which suggests, on the basis of what appear to be very reasonable assumptions, that the present value of benefits for existing Civil Service employees and existing retirees—the present value of all those benefits which would be paid out over the next 50, 60 years—is greater than the present value of the salaries of people presently in the Civil Service system taken over their working lifetimes with the system.

Mr. GALLEHER. I would like to ask one other question, if I could. I looked over your statement very carefully before I came here, and the actual presentation we saw today had a lot of different numbers in it that were not present in the report I got. Do you have a supplementary report with sources labeled so that we could look over these numbers—since we could not prepare ahead of time—and at least respond for the record on your orally reported data?

Mr. KEENE. Yes, we can do that.

Mr. SALISBURY. Thank you.

Can you submit something with that documentation for the record, which I think would help people in evaluating what is in the printed document? [1]

Mr. KEENE. Right.

Mr. SALISBURY. Jamie?

Mr. COWEN. Ken, you mentioned here that you divided pension costs between the employer, employee, and investment return. Normally—and I don't know if you can take a typical private plan—but generally how are the costs allocated among those three numbers?

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[1] See preceding slides 2, 3, 4, 9, and 10.

Mr. KEENE. It used to be you could. In the first place, in the private sector, in the defined benefit pension plan, it is very much the minority, almost bordering on rare now, to have employee contributions. Of course, employees still pay Social Security taxes, so that is a form of employee contributions, but to a different system.

Where the split was really between employer contributions and investment return, you used to be able to say that in a mature kind of plan, more than half the benefits in a funded plan would be paid for by the investment return. Those were in the days when investment returns were relatively low. As investment returns move up, as they have, and if they stay up, I think you will find that a much higher percentage of pension cost in a plan with a regular funding schedule will come from the investment return.

Mr. COWEN. I guess that is looking at a particular year, well into the pension plan's lifetime. But if you looked over the total lifetime of a plan, in other words, maybe over a 20-year or a 30-year period, how would you allocate the costs then between investment return and employer's contribution? Would it still be half on the investment return side?

Mr. KEENE. No, because in the early years of a plan that is just starting, particularly if it has any past service credits it is granting in the early years of a plan, much of the cost is coming from the employer contribution. The majority of cost is, and then it changes in time as the fund builds up.

Mr. SHANEFELTER. I would like to go to your recommendations that you propose in the last portion of what you said.

As I understand it——

Mr. KEENE. They weren't recommendations. They were just conversation.

Mr. SHANEFELTER. You had a 6-percent employee contribution with a 2-percent match, and a 4-percent contribution with a 50-percent employer match, and then you had a defined benefit plan which was paid for by one half of the proceeds of the 401(k)?

Mr. KEENE. Yes. That was the idea, yes.

Mr. SHANEFELTER. I'm not aware of any plan like that in the private sector. Could you tell me anything?

Mr. KEENE. There is no reason why there has to be a plan like that in the private sector.

Mr. SHANEFELTER. I have never heard of it, taking proceeds out.

Mr. KEENE. It is something that was legitimatized by ERISA. It is called a floor plan, basically, and some floor plans do exist, yes.

Mr. SHANEFELTER. Is there any difficulty in administering that?

Mr. KEENE. I guess you could say yes, but not insurmountable.

Mr. SHANEFELTER. Thank you.

Mr. GALLEHER. On the same point, do we understand that this last concept or idea of yours would have an employee contribution of 13 percent of payroll?

Mr. KEENE. No. That part was wrong. In the example I gave, on the first 2 percent of employee contribution, the Government would match that by 2 percent. On the next 4 percent of employee contribution, the Government matched that by 2 percent. So the total contribution, Government and employee, would be 10 percent.

Mr. GALLEHER. From the employees' point of view, then, they would have the contribution to Social Security, plus the original 6

percent on top of that in order to achieve your reported net replacement ratios.

Mr. KEENE. That is right. Some employees, particularly lower paid employees, could not engineer that too handily. On the other hand, the Social Security benefit itself is heavily tilted in their favor, so there is some offsetting impact.

Mr. GALLEHER. Could you give me examples in the private sector where employees typically contribute a total of 13 percent, counting Social Security and their retirement plan, in a larger firm rather than smaller ones?

Mr. KEENE. Yes. In the case of oil companies.

Mr. CURTIS. Thrift plans.

Mr. KEENE. Thrift plans, sure.

Bear in mind, let me also state, if we went in that direction at all, I would propose that the employee contribution be made out of pre-tax dollars, which makes it cheaper, of course, than would currently exist.

Mr. SALISBURY. Hastings Keith?

Mr. KEITH. What is the kind of offset that you would have in this plan that you have proposed, Social Security offset? Is there anything other than the 50 percent?

Mr. KEENE. None. None.

Mr. KEITH. On the basic plan there would be none?

Mr. KEENE. Yes. That probably surprises you.

Mr. SALISBURY. George Cowles?

Mr. COWLES. I had my hand up, because my contribution to my bank's thrift plan is 6 percent, which added to Social Security is 13, and that is typical of the 6 of 10 companies on the New York Stock Exchange that have defined contribution plans these days, a 6 percent contribution plan which gets you to 13.

Mr. KEENE. Thank you, George.

Mr. SALISBURY. What you are saying, George, which I think should be amended, is you are looking at the defined benefit plus the defined contribution plus Social Security, those three together, which is your example.

Dennis?

Mr. SNOOK. Do I understand that this plan would be a 1.5 percent times years of service times salary, and it would be an add-on to Social Security?

Mr. KEENE. Yes.

Mr. SNOOK. But an employer cost of about 5 percent, 4 percent?

Mr. KEENE. I didn't say that the employer cost——

Mr. SNOOK. For the defined contribution?

Mr. KEENE. Four percent employer contribution—maximum.

Mr. SNOOK. Given the current Civil Service retirement age, the plan cost would be higher than the current system?

Mr. KEENE. No. I should amend that, or clarify. I used retirement age 65. Of course, in the Civil Service Retirement System, you can retire as early as age 55 with full benefits. That's a huge difference.

Mr. SALISBURY. Helene, do you have a comment?

Ms. BENSON. I just wanted to get one point clear. On the thrift plan contributions by employees, aren't those in addition to defined

benefit plans to which they do not contribute at all, and aren't those contributions to the thrift plan voluntary on their part?

Mr. KEENE. Typically, yes. They're voluntary, yes.

Ms. BENSON. So it is supplementary.

Mr. KEENE. They are often matched with an employer contribution, so there is a substantial incentive.

Ms. BENSON. They are in addition to the defined benefit plan to which employees do not contribute at all?

Mr. KEENE. That is correct.

Mr. SALISBURY. And which they would not have. In a newly designed Civil Service system for new hires, an employee contribution is obviously something you can choose to have or not to have.

Yes, Gray?

Mr. HUTCHISON. I would like to ask a question. What type of employee are we talking about? The Federal Civil Service will be hiring young people, will they not, as new employees with all the old ones left in the old system?

Mr. SALISBURY. The way in which the law currently stands, the 1983 Social Security Amendments have called for a Civil Service Retirement System to be put into place for new hires, given that they will be covered by Social Security prospectively. So what we are talking about is what that new system for those new hires will be.

Mr. HUTCHISON. Do they only hire people 55 and 60 years of age in the Federal Government, or do they start with younger ages like 20 and 30?

Mr. SALISBURY. I imagine it is across the entire age spectrum.

Mr. HUTCHISON. The reason I raise that question is that we had a nongovernment agency kicked out of our State retirement system because it was a quasi-governmental entity. We replaced it with 401(k). They had the choice to stay with the liberal State system. 401(k) was projected on average earnings and 90 percent of these people in the credit union, the third largest one in the country, opted to go to 401(k). They are much better off under that plan than the defined benefit plan in the past.

The point I am making is everybody is acting as if a new plan is going to take away benefits. It is very possible, if they are young enough, that it will not take away benefits. If you want to protect them, you could have a floor protection plan with very little, if any, cost to take care of the rare oddity. I would not, however, give the employee the choice of selecting his own funds, because if he made a mistake of it, you would have to pay for it twice under the floor protection plan.

Do you see what I mean?

Mr. KEENE. Yes.

Mr. SALISBURY. Yes.

Mr. EICKMEYER. Thomas Eickmeyer with GAO.

Some of the States have a combination of defined contribution and defined benefit and the employee gets the greater of the two at the time of retirement. Do you know how those have come out in the end? Do they get the greater of the contribution plan or the benefit plan?

Mr. KEENE. I'm not familiar with that. If the defined contribution plan has investment choices and you had that kind of struc-

ture, I guess the employee would be kind of foolish not to take advantage of the most agressive investments. So it doesn't sound like it would be a very good theoretical plan to set up. I don't know.

Dennis?

Mr. SNOOK. Following up on something Mr. Shanefelter mentioned a few minutes ago, you say that a pension plan is primarily financed out of employer contributions and investment earnings. Could not those investment earnings be also considered as employee costs given those are earnings that the employee could have achieved had the employee had that money to invest on his own in tax free investments?

Mr. KEENE. Yes, but you have thrown in a key caveat there, tax free investments, but yes.

Mr. SALISBURY. Hastings?

Mr. KEITH. Earlier we had some discussion or at least it was mentioned in passing about how the plan that we finally adopt would influence the private sector and other public employee plans. If we, as a matter of public policy, sponsored plans with 120 percent replacement ratios, and other public employees, police and fire departments of West Bridgewater and Brockton, began modeling their plans after ours, what would it do to our economy and our ability to compete? If other public agencies followed our model, the increased costs would add $300 or $500 billion to the cost of doing business in this country.

Mr. SALISBURY. One subject is—the previous discussion about the numbers and how you can play many games with numbers, which was discussed in detail at prior forums—is that the use of averages can be very misleading in the same way that putting too much reliance on a replacement rate that is used for a full career worker who has spent 35 years in a single employment setting is not the replacement rate that the average worker is going to get.

So I think it would be jumping a step to assume—even in Ken's hypothetical musing, is I think the way he characterized it—to say that system would produce 128 percent wage replacement is a dramatic overstatement in terms of what it would produce for most workers or for the typical worker.

Mr. KEITH. I realize that, but did he not assume that—how many years of——

Mr. KEENE. Thirty-five years.

Mr. SALISBURY. Thirty-five years of service.

Mr. KEITH. The average work span in the future will be at least, I would think, 40 years.

Mr. SALISBURY. But not generally with one employer. Based on the turnover experience that we see here, the average tenure of individuals now that work for the Federal Government is low.

Jim?

Mr. KEENE. I think so. I agree with your basic premise, and that is, any program that is designed, particularly one with extremely high visibility, should not be one where you go overboard on exceeding any reasonable objective. We sponsored a survey, a national survey a few years ago on retirement adequacy, and in that survey, we asked people, both active and retirees, what was a reasonable goal to shoot for in terms of retirement adequacy, in terms of replacement ratios based on spendable or after-tax income con-

cepts. The vast majority of the people responded that if the retirement benefit came close to replacing their standard of living right before they retired, then that would certainly do the trick, that was the answer they came up with. They aren't saying they had to be in excess of that. They weren't saying it had to be above that level, but if it came close to that level, then it would be a reasonable result.

Mr. SALISBURY. I will take two final comments, one from Mr. Tobin and one from Mr. Cowles.

Mr. TOBIN. I think the proposal Ken came up with is in line with various studies we have done which indicate that for better programs in the United States, replacement ratios of 120 percent or 130 percent for a 35-year employee retiring at age 65 are not unusual. This, of course, is on an after-tax spendable income basis.

Mr. SALISBURY. George?

Mr. COWLES. Ken, you didn't detail the assumptions that were in your calculation. I think when you submit that for the record, that that should be there, because there are a number of—well, for instance, the differential between the assumed earnings rate on the accumulation and the salary scale you have taken into account. You don't need a salary scale, obviously, but therefore, the reinvestment return should be reemphasized to include its Social Security. It also, as Vince just mentioned, was after tax, which has a significant bearing, as well.

Mr. KEENE. Yes. I don't know what is going to happen if we come to this so-called flat tax. I don't know how that would change it.

Mr. SALISBURY. The final topic on the agenda today is administrative issues. The two speakers come from business and the public sector. Charles Tharp administers a Government agency, the Pension Benefit Guaranty Corporation. The administrative issues question was put on the agenda by the staff because of their feeling that too frequently, the question of what does it take to implement something, how difficult it might be, is set aside and not discussed. I think as Jim Curtis made the point earlier, what can be done today with modern technology and computers makes things a whole lot easier than it was 10 and 15 years ago.

One can still sense from the overview paper that Jerry Facciani distributed prior to the meeting that there are still issues to be discussed, however.

We will go in reverse sequence from that on the agenda, and the first speaker will be Charles Tharp, Executive Director of the Pension Benefit Guaranty Corporation.

Charles?

V. ADMINISTRATIVE ISSUES

Administrative Issues

(Presented by Charles C. Tharp, Executive Director, Pension Benefit Guaranty Corporation)

Mr. THARP. Thank you. It is a great pleasure to be here. As most of you know, the PBGC was established under Title IV of ERISA in 1974 to protect the retirement income security of plan participants and their beneficiaries covered under private sector defined benefit pension plans.

PBGC was given certain statutory purposes under the Act which are to encourage the continuation and maintenance of voluntary pension plans for the benefit of participants; to provide for the timely and uninterrupted payment of pension benefits under plans to which Title IV applies; and to maintain insurance premiums at the lowest level consistent with carrying out the Corporation's obligations under Title IV.

The Multiemployer Pension Plan Amendments Act of 1980 amended Title IV with respect to multiemployer plans, and among other things, stated that it was desirable to increase the likelihood of protecting plan participants against benefit losses and to provide reasonable protection for participants of financially distressed multiemployer plans.

Also, to replace termination insurance with an insolvency based program that would enhance the financial soundness of multiemployer plans, emphasizing plan continuation and containing program costs within reasonable limits; also to alleviate certain problems which tend to discourage maintenance and growth in multiemployer plans; and to provide a financial self-sufficient program with the guarantee of employee benefits under multiemployer plans.

With those two statutory injunctions, let me proceed to describe the two major areas: single employer and multiemployer programs in PBGC. Under the single employer program, PBGC guarantees benefits under law up to a level of $750 in 1974 dollars, which is $602 today in the event that the single employer pension plan terminates.

Under our voluntary pension system, a plan sponsor may, at any time, decide to terminate a plan, but has certain continuing responsibilities with respect to that plan, and has certain administrative responsibilities which must be discharged in relation to the PBGC.

A plan administrator who terminates a single employer defined management plan must notify PBGC prior to the termination. The Corporation, then, proceeds to determine if the plan's assets are sufficient to pay the benefits guaranteed by law. If the plan's assets

are sufficient, we authorize the distribution of assets pursuant to plan provisions and applicable requirements of law.

On the other hand, if the plan's assets are insufficient, PBGC becomes trustee in order to assure that plan participants are paid their guaranteed benefits as mandated by law.

We make up the shortfall between the amount of assets in the plan and the amount necessary to cover the guaranteed benefits. Employers that terminate plans with insufficient assets to provide all guaranteed benefits are liable to PBGC for plan asset insufficiency of up to 30 percent of the employer's net worth.

I should note that PBGC must accept all claims made against it, no matter what the financial status of the plan or the employer and without regard to whether the plan had paid PBGC premiums.

In terms of the scope of the program, the single employer program covers nearly 29 million participants in approximately 105,000 pension plans. Between the enactment of ERISA in 1974 and the end of fiscal year 1983, PBGC has received about 50,200 notices of plan termination.

About 98 percent of those plans have sufficient assets to pay all guaranteed benefits under authorized distributed assets. At the end of fiscal year 1983, PBGC was trustee of about 900 plans and was responsible for the payment of benefits to about 116,000 participants.

About 60,000 individuals were in pay status, receiving a total of $135 million in annual benefits. I might add, we administer that program ourselves, so we don't farm out the payment of checks or the administrative process to outside contractors except on an interim basis pending the internalization of the work.

Our long-term program is to administer those within the Corporation. The program is financed by mandatory annual premiums of $2.60 per participant from each covered single employer plan. The premium revenues, together with payments collected under the employer liability provisions, the assets of plans under PBGC trusteeship and our investment income of assets accounts, are used to discharge PBGC's liabilities under the single employer program.

We do not receive funding from Federal taxation, nor are claims against the insurance program obligations of the U.S. Government. We do have a $100 million line of credit with the U.S. Treasury, which we have not utilized and do not presently envision utilizing.

PBGC premium increases and changes in the premium basis must be approved by Congress. PBGC has had a policy since its inception of funding its program on a current basis, so the termination claims—net of allocable plan assets and employer liability—incurred in a year plus administrative expenses for the year are fully funded by premium revenues and investment income for that year.

One difficulty in projecting PBGC's claims in the future is that they are attributable in large part to a relatively small number of very large insufficient terminations. The number and size of large claims have grown through the program's short history. Past claims experienced thus far has been the most statistically reliable basis for projecting future claims.

In this respect, I should note that in fiscal year 1982, the PBGC experienced extremely high claims, $260 million in losses, and the

following year, we also had higher than normal claims, $175 million in losses.

PBGC and the administration presently are requesting the Congress to increase the single employer premium to $7 per participant per year effective January 1, 1984, in order to fund its accumulated $521 million deficit and to cover future claims as they occur.

In addition to the requested premium increase, PBGC is seeking Congressional approval of proposed legislative amendments to the single employer program. These amendments are intended to minimize program abuse, encourage the maintenance and continuation of voluntary multiemployer pension plans, and to assure the timely and uninterrupted payment of benefits to beneficiaries and participants.

Let me turn for a moment to the multiemployer plan. In September 1980, Congress amended ERISA to establish insolvency insurance programs. Under this approach, the employer is assessed liability when it completely or partially withdraws from the multiemployer plan. Under prior law, the employer would withdraw without such liability; however, if the plan terminated, PBGC guaranteed certain benefits, and the employers contributing 5 years preceding termination were liable to PBGC for a proportional share of unguaranteed benefits.

Under the 1980 amendments, multiemployer plans are responsible for collecting withdrawal liability and withdrawal liability collections become assets of the plan. PBGC will finance if they are not able to pay the benefits that are guaranteed by ERISA, as amended, in order to assure that beneficiaries will receive those benefits.

In terms of the scope of the program, the multiemployer covers about 9 million participants in approximately 2,500 defined benefit multiemployer plans.

I might add that that number has been relatively constant over the life of the program, unlike the single employer side, where we have seen steady increases in the number of defined benefit plans during the history of the program.

In terms of financing on the multi side, we collect an annual premium from each plan at the rate of $1.80 per participant per year. This is on the basis of a scale which began with $1.40 per participant in 1980 and began to rise to $2.60 over that timeframe. The PBGC Board of Directors may escalate that increase but may not increase it beyond $2.60 without the approval of Congress.

I should note and say that in terms of the operating statistics, we are currently providing financial assistance to two multiemployer plans, and we have set aside a reserve to cover losses from five additional plans. That is in the amount of about $20 million. Payments net of repayments through fiscal year 1983 in reference to the financial assistance amounted to about $940,000. That gives something of an overview of our program.

I think that it relates to the administrative issues that we are addressing here this afternoon in respect to the kind of processes and procedures that the plan administrator has to go through in order to meet the requirements of the termination and insurance provisions, namely, his annual payment of premiums on PBGC

form 1, and most particularly, the various procedures he must go through when plans are being terminated.

There may be particular questions that people have in particular areas, Dallas.

Mr. EICKMEYER. You have two kinds of investments: Your premium money is going into special Government bonds, and your private investments for the plans you take over in the private sector.

What has been your relative experience on those two different kinds of investments?

Mr. THARP. That is a good question. The premium moneys go into what is called a revolving fund. They are public enterprise funds. They go into special Government bond issues in the sense that we have a book entry with the Treasury as to bonds that we purchase but, in fact, those bonds are analagous to what is traded in the open market.

In other words, there isn't a private placement or a special issue just for us, but instead, we can say that we would like to have $50 million of the Treasury 2001s, at the price as of noon today, and we can make that purchase by placing a phone call to the Treasury.

On the other hand, as you indicated, the assets inherited from terminated plans are placed in the trust fund, which is available for discretionary investment, as well as the income from those assets over time.

Our experience in both of those funds has been quite favorable. The discretionary funds have largely been invested in equities. Last year, we also established a discretionary bond account within that portfolio. The total in those two areas presently amounts to about $500 million in the trust funds and about $300 million in the Treasury account for a total of $800 million in our investment portfolio.

Mr. SALISBURY. What has been your inflation adjusted rate of return in those accounts?

Mr. THARP. We, like many people, I suppose, use a number of different indices, the stock market indices, our own closeout rate, which is, of course, the assumption rate we are using in terms of discounting those future liabilities back, and of course, the inflation rate.

We have stayed ahead of the inflation rate, the indices, and the PBGC closeout rates over the 8-year period since the inception of the program.

I can get particular statistics for you.

Mr. SALISBURY. We talked about the numbers that were used in the case of the current Civil Service system as a 1 percent spread, if you will. A discussion of general markets and an example from AT&T was that some have achieved 2.5 percent.

Do you know where in that range you have been?

Mr. THARP. I suspect that we are on the lower end of that range with respect to Government bonds, and perhaps exceeded the AT&T experience with respect to discretionary moves.

Mr. SALISBURY. To the degree you have invested exclusively with the Treasury, you have been close to 1 percent, and only where you invested actively in general markets, if you will, have you achieved in the range of the 2.5 percent.

Mr. THARP. Yes. Yes.

Mr. SALISBURY. Does that get to your concern? Are there other questions?

Mr. JAYNE. I have a question. I am interested in the approximate size of the operating budget of the agency, how many staff you have, and what the day-to-day functions of the staff are, particularly with respect to enforcement.

Do you rely heavily on reporting mechanisms and things of that nature? Do you have other investigative techniques?

Mr. THARP. Our present budget, this fiscal year, is about $35 million. We have about 500 employees. Next year, our budget will be $33 million. It is the first time the budget has been reduced in PBGC, and I am hopeful that in succeeding years, we will be able to keep it in trim shape.

We don't have any enforcement powers in the sense that the FDIC or some of the other depository insurance institutions have the ability to go in and audit it in advance, look over the books and issue cautions; that sort of power is something that we do not have.

On the other hand, form 5500, of course, that is filed jointly with IRS and DOL, does provide basic information as to the structure of the plans.

On the other hand, we have a universe consisting of 110,000 pension plans. It is not administratively feasible for us to cull through all 110,000 on a continuing basis to see where our risks may lie or where they don't lie. Instead, what we have is a screening mechanism to do it by major cases that we should monitor. In those instances, we use form 5500s, 10Qs, other public information to guarantee we are closely monitoring any situation that is going to come in the door.

As I said, we don't have major enforcement powers in advance.

Mr. SALISBURY. Other questions or comments? Yes, Dave?

Mr. DELQUADRO. The Government securities you invest in, are those redeemable at par value or at market price?

Mr. THARP. At market price. In other words, if we decide to sell that issue next week, having made a different decision as to where we ought to be on the yield curve, we go back to Treasury and sell them at the market price on that day.

Mr. DELQUADRO. The second question is, you implied that you recently created a bond portfolio for the private sector investments?

Mr. THARP. That's right.

Mr. DELQUADRO. Have you made a decision to shift partially away from the equities toward the fixed rate of returns?

Mr. THARP. Yes. We did that last year. Whether it was due to dumb luck of the invesment advisors, the favorable swing we got from that placement of approximately $100 million of that fund into bonds amounted to about $30 million from the history to date. So we don't regret having done that.

Mr. SALISBURY. Jamie Cowen?

Mr. COWEN. I have two questions. Who invests your funds in the private market? Is it your staff or is it outside counselors?

Mr. THARP. Good question. It is a fairly structured process. The statute established an advisory committee, which is appointed by the President and represents the general public, the interests of employees and the interests of employers.

These people come from a broad background. The present members include people from insurance companies, people from the actuary profession, unions, from management, and they bring a fairly broad financial and business point of view. The statute gives them the responsibility to advise us as to the investment of trust funds. That is a counseling function.

But on the other hand, given who appoints them and who they are, we view their advice with a good deal of weight. They are the first people who assist in developing investment policy. Policy, then, is approved by the Corporation and the Board of Directors, setting out overall policy parameters.

Now, toward implementing that policy, we do that by making overall allocation decisions and then farming out particular pieces of the pie to individual managers. We have a custodian bank, State Street Bank in Boston, and we have presently two equity managers. They are Putnams Advisory and Alliance Capital. We are shortly going to be adding to our list of managers in that area.

We also have Pimco, Pacific Mutual Insurance Company, advising us on bonds.

Mr. COWEN. The second question I have is you mentioned in your paper that about 98 percent of the terminated plans have assets sufficient to cover the liabilities. Of those 2 percent that don't, what has been the experience of the employees? Have obligations not been met?

Mr. THARP. No. We have always made sure that the people get their checks. They are sometimes—regrettably there can be a lag if there is a plan out there that doesn't file for termination, doesn't know of the availability of the insurance system. There have been a few isolated instances of that occurring.

However, as soon as we know of a plan being in distress or potentially a termination, and especially if there are people who are "out of pay status," we are able to move in, apply to a court for trusteeship, receive trusteeship of a plan, and fund it.

As I say, those are rare instances. Most cases that come to us have plan assets. The average is about 45 to 48 percent funded, so there is money there to be paying the checks each month.

However, future payouts have to be funded for all the future potential payments that will have to be made.

Mr. COWEN. What is going to happen to them? Is your Corporation going to fully fund those?

Mr. THARP. That is up to the Congress, I must say, because we presently have enough money to pay only about two-thirds of the benefits that we are now responsible for.

We have assets of about a billion dollars; we have liabilities of about $1.5 billion, and that $500 million deficit is what we are asking Congress to give us the $7 premium to cover.

Mr. SALISBURY. Charles, one question. How is the PBGC governed? Does it have a Board of Trustees, or is it under one of the Cabinet Secretaries, an independent agency? Could you briefly touch on that?

Mr. THARP. Very good point. Our Board of Directors consists of the Secretary of Treasury, the Secretary of Commerce, and the Secretary of Labor; and the Secretary of Labor, by statute, is the

Chairman of our Board. So I report to Ray Donovan, subject to the Board of Directors as the ultimate authority of the Corporation.

We are physically located separately from the Departments. We are subject to the Office of Management and Budget as to our administrative budget, and of course, part of the administration in the overall scheme of things.

Mr. SALISBURY. Andy?

Mr. RUDDOCK. Has overfunding been a contributing factor to plan terminations, and if so, to what extent?

Mr. THARP. This is very much an issue that is front and center right now: the question of the reversion of surplus assets and whether we have seen a rush to the door in cases of overfunding, in the last year or two when, from some points of view, it might have been an attractive option, mainly because of high interest rates which mean that the purchase of annuities is relatively reasonable, and the fact that the run up of stock market values has meant that plan assets may be at an all-time high. The estimates that I have seen, and they have been done by a number of different sources, would indicate that the amount of overfunding in these cases is in the aggregate, $70 billion to $100 billion. This is in a defined benefit universe of some $600 billion in assets.

Now, in the last 3 years, the PBGC has received notices of intention to terminate with respect to large asset reversion cases. We define those as being cases of over $1 million, totally about $2.5 billion, so this is a relatively small percentage of the total universe.

However, it is a larger sum of money than had been reverting through this mechanism in preceding years, which has led to the question which you have raised: Is this the thin end of a wedge where we will be seeing more and more of these?

The administration is working jointly with three agencies, IRS, DOL, and PBGC, under the ERISA working group, chaired by Bill Niskanen in the White House, which has worked out a policy which would answer some of the questions in terms of abuse in this area, but make sure that the overall scheme of the pension system, which is that pension plans are voluntary and termination is voluntary, is to be preserved.

We think this trend we have recently seen is a relatively minor one. The markets will probably take care of it before too much longer.

Mr. RUDDOCK. Thank you.

Mr. SALISBURY. Ed Jayne, did you have a question?

Mr. JAYNE. Yes. I was wondering if you had materials that you could possibly submit to us, perhaps for the record, on your investment returns.

Mr. THARP. Yes, we would be happy to do that. We can give you historical statistics, 1-year, 5-year, 8-year.

[The information referred to follows:]

Pension Benefit Guaranty Corporation
2020 K Street, N.W. Washington, D.C. 20006

JUN 8 1984

Office of the Executive Director

Mr. Jamie Cowen
Special Counsel
Subcommittee on Civil Service, Post
Office and General Services of the
Senate Committee on Governmental Affairs
601 Hart Senate Office Building
Washington, D.C. 20510

Dear Jamie:

In response to the request made during the Policy Forum on Pension Funding, Investment and Administrative issues, attached are data pertaining to (1) PBGC's investment performance and (2) a partial list of terminating plans which indicates the type of successor plan.

With regard to attachment B on successor plans, the list represents only those plans involving a reversion of assets that are currently pending or were pending as of December 1983. The categories indicating the types of successor plans represent the data as indicated on the Form 5310 filed by the plans. As was mentioned at the Forum, the plans are not bound to establish the types of successor plans indicated on the Form 5310 and, in many instances, have ultimately established a plan different from that indicated.

I hope this information is useful to the committee in its review of pension issues.

Sincerely,

Kevin W. Putt
Special Assistant to the
Executive Director

ATTACHMENT A

Table IV

	Fiscal Year 1983	Fiscal Year 1982	Five-Years Ended September 30, 1983 (Annualized)
Revolving Funds - Government Securities	+12.5%	+32.8%	+ 7.4%
Lehman Government Bond Index	+13.4%	+30.3%	+10.1%
Trust Funds at Coustodian Bank			
Stocks	+46.3%	+ 9.9%	+17.7%
Bonds	+ 3.5%*	N/A	N/A
S&P 500	+44.0%	+ 9.7%	+15.9%
New York Stock Exchange Index	+39.1%	+ 9.3%	+15.6%
Corporate Bond Index (Salomon Bros. High Grade, Long Term)	+16.9%	+45.6%	+ 6.4%
Inflation	+ 3.8%	+ 3.9%	+ 8.7%

*Since June 30, 1983

ATTACHMENT B

EXCESS ASSETS/SUCCESSOR PLANS

Category	Plan Sponsor	Assets	Benefits	Reversion
A	Frank B. Hall	$ 26.1M	$ 7.6M	$ 18.5M
A	Forsyth	1.2M	.3M	.9M
A	William Underwood	10.3M	6.3M	4.0M
A	Butler Mfg. (5 plans)	39.0M	22.6M	16.4M
A	General Refractories	6.6M	.57M	6.03M
A	Wilmington Investments (2 plans)	2.5M	.4M	2.1M
A	Multimedia Broadcasting	.2M	.05M	.15M
A	Hurst Performance	.9M	.1M	.8M
A	Armour Food (3 plans)	107.0M	16.0M	91.0M
A	Celanese	415.0M	115.0M	300.0M
A	Bekins	20.0M	12.0M	8.0M
A	Harshaw/Filtrol (2 plans)	55.7M	21.8M	33.9M
A	Clark Oil (2 plans)	28.5M	18.5M	10.0M
A	Dikar Tool (2 plans)	.4M	.04M	.36M
A	Valley National Bank	102.0M	51.0M	51.0M
A	Ashland Tech.	1.8M	.3M	1.5M
A	Big Bear Farm Stores	4.9M	3.6M	1.3M
A	Wallace Machinery	4.6M	.2M	4.4M
A	Denver Broncos	.5M	.2M	.3M
A	Brown Boveri	32.0M	17.5M	14.5M
A	Amax	170.0M	69.0M	101.0M
A	Inco Electric	58.8M	24.3M	34.5M
A	Springfield Photo	.9M	.4M	.5M
	Subtotal	$1,088.9M	$387.76M	$701.14M
B	Booth Newspapers	2.4M	1.2M	1.2M
B	Rapid Roller	1.06M	.86M	.2M
B	Gilmore Steel	22.7M	13.4M	9.3M
B	Federal Paper	57.0M	42.0M	15.0M
B	Mirro Corporation	19.7M	12.5M	7.2M
B	I.U. Transportation	21.8M	8.3M	13.5M
B	Reynolds Metal	464.0M	334.0M	130.0M
B	Allied Supermarket	12.0M	7.0M	5.0M
B	Maywood	4.5M	1.5M	3.0M
B	Superior Box	.9M	.5M	.4M
B	James Kemper	6.2M	3.9M	2.3M
B	Beneficial Corporation	83.8M	32.2M	51.6M
B	National Savings Bank	1.5M	.9M	.6M
B	People's Vernon	.6M	.4M	.2M
B	Regency Savings	.5M	.4M	.1M
B	State Bank	3.0M	2.8M	.2M
	Subtotal	$701.66M	$461.86M	$239.8M

EXCESS ASSETS/SUCCESSOR PLANS

Category	Plan Sponsor	Assets	Benefits	Reversion
C	Metalic Braden	$ 4.0M	$ 3.0M	$ 1.0M
C	Albert Equipment	9.9M	4.6M	5.3M
C	Milford Rivet	5.2M	3.8M	1.4M
C	Weatherford	7.5M	3.8M	3.7M
C	First National Supermarket	27.0M	15.8M	11.2M
C	Medicine Bow Coal	2.6M	.5M	2.1M
C	Gordon Ford	4.5M	1.2M	3.3M
C	Mellon Inst.	5.9M	2.7M	3.2M
C	Arch Metal Corp. (2 plans)	5.5M	1.3M	4.2M
C	People's Savings Bank	2.5M	.6M	1.9M
C	Cities Services	15.7M	13.7M	2.0M
C	Raymond International	70.0M	40.0M	30.0M
C	Wilson Food	79.0M	49.0M	30.0M
C	Intext	6.0M	3.6M	2.4M
C	John W. McGrath	4.7M	3.1M	1.6M
C	Hanady Bros. Food Market	3.3M	2.0M	1.3M
C	Quality Bakers	3.9M	2.1M	1.8M
C	Funk Manufacturing	4.3M	2.5M	1.8M
C	Interstate Brand	78.0M	43.0M	35.0M
C	Sun Life	6.8M	5.1M	1.6M
C	J.J. Henry	8.6M	5.6M	3.0M
C	Standard Knapp	5.3M	2.5M	2.8M
C	Eyelet Spec.	3.4M	2.2M	1.2M
C	Crompton Co. (2 plans)	14.3M	9.8M	4.5M
C	Herbst Corp. (2 plans)	5.5M	2.0M	3.5M
C	S & T Industries	3.0M	1.9M	1.1M
C	Southwest Forest	21.0M	13.9M	7.1M
C	United Central Bancshares	6.4M	3.3M	3.1M
C	Liberty Glass	3.8M	2.3M	1.5M
C	C.H. Masland	8.6M	3.0M	5.6M
C	Holcraft	6.3M	3.3M	3.0M
C	L.I. College Hosp.	24.0M	10.0M	14.0M
C	Research Central	21.6M	19.1M	2.5M
C	Bruno's	3.6M	1.6M	2.0M
C	Faultless/Bon	2.1M	1.1M	1.0M
C	Herman Corporation	2.2M	.7M	1.5M
C	Equitable Life	1.9M	.4M	1.5M
C	Kohn, Savelt	3.2M	1.3M	1.9M
C	Welding Engineers	2.7M	1.6M	1.1M
C	A&P	356.4M	81.4M	275.0M
C	TRW Globe	3.2M	1.5M	1.7M
C	Holland American	5.1M	3.9M	1.2M
C	Imperial Knife	11.1M	5.9M	5.2M
C	Roamans Inc.	3.3M	1.7M	1.6M
C	Norlin Industries	25.0M	10.8M	14.2M
C	Scribner Book	5.2M	2.9M	2.3M
C	Republic Franklin	2.2M	.6M	1.6M
C	Continental Federal	3.2M	1.9M	1.3M

EXCESS ASSETS/SUCCESSOR PLANS

Category	Plan Sponsor	Assets	Benefits	Reversion
C	Martin Brower	$ 2.2M	$ 1.2M	$ 1.0M
C	Bethlehem Steel	10.9M	9.7M	1.2M
C	Allied General	7.3M	4.3M	3.0M
C	Katz Communications	6.3M	4.5M	1.8M
	Subtotal	$935.2M	$417.3M	$517.9M
D	First Miss, Inc.	6.5M	2.2M	4.3M
D	Doyle Dave Bernback	5.2M	3.0M	2.2M
D	Cities Services (2 plans)	45.5M	36.2M	9.3M
C	Norman Engineering	1.6M	.6M	1.0M
D	Dubuque Packing	14.9M	13.7M	1.2M
D	Western Union	3.9M	2.0M	1.9M
D	Automotive Corp.	1.5M	.5M	1.0M
D	Tillie Lewis Food	6.9M	2.3M	4.6M
D	Capital Steel Corporation	5.2M	2.4M	2.8M
D	Jacobus	3.7M	1.8M	1.9M
D	Chatnam Supermarkets	5.6M	1.4M	4.2M
D	Amic Corporation	2.2M	.5M	1.7M
D	King's Dept. Store	19.2M	15.8M	3.4M
D	Forest City	2.3M	1.3M	1.0M
D	GSC	6.2M	1.4M	4.8M
D	American Ship Building	7.0M	3.6M	3.4M
D	McConway & Torley	2.8M	1.2M	1.6M
D	Burdick Corporation	2.8M	1.8M	1.0M
D	Jenkins Bros.	11.1M	8.1M	3.0M
D	Modern Drop Forge	5.0M	3.2M	1.8M
D	Wallace Machinery	4.6M	.2M	4.4M
D	Modulars	5.1M	2.5M	2.6M
D	Warren Tool	2.5M	1.4M	1.1M
D	Cooper Industries	11.9M	8.0M	3.9M
D	Spector Redball	10.6M	9.0M	1.6M
D	Dorchester Refining	3.3M	1.9M	1.4M
D	T.I.M.E. - DC, Inc.	14.3M	7.6M	6.7M
D	Field Enterprises	3.4M	2.2M	1.2M
D	Bob and Socket	2.5M	1.0M	1.5M
D	Rangaine Corporation	3.8M	2.3M	1.5M
D	Old B. Company	2.8M	1.8M	1.0M
D	Babcock & Wilcox	3.4M	1.9M	1.5M
D	Connors Steel	7.9M	5.0M	2.9M
D	Georgia Pacific	2.9M	1.9M	1.0M
D	First Charter Financial	8.5M	6.2M	2.3M
D	Davis Walker	4.5M	1.9M	2.6M
D	Tri State Exchange	2.3M	1.2M	1.1M
D	First Federal Savings & Loan	4.1M	2.9M	1.2M
	Subtotal	$257.5M	$161.9M	$95.6M
	GRAND TOTAL	$2,983.26M	$1,428.82	$1,554.44M

CATEGORIES

A = Spinoff/Termination

B = Termination/Reestablishment

C = Successor Defined Contribution Plan

D = No New Plan (Complete Termination)

Mr. HUTCHISON. Thank you, Charles.

I would like to ask for a question of clarification on this overfunding. We keep hearing that investment funds have created this, et cetera; but am I not correct, Dallas—I am sort of moving off to the right on this—but am I not correct that in the projected method of valuing funds, where you are using a $96,000 final average salary compared to a current salary of $20,000, that you are bound to be overfunded if you are anticipating future liabilities?

As a going concern, you are not overfunding. As a liquidated concern, if you terminate, you are overfunding, because you are using a different base for wages.

Mr. SALISBURY. The difference between the termination liability or overfunded situation versus the on-going, as I think the actuary would attest, can make a very significant difference, yes.

Mr. KEENE. Most definitely.

Mr. HUTCHISON. So sound practices really lead to this situation.

Mr. KEENE. I was saying that most actuarial valuation methods are deliberately conservative in that sense, and they do take care of the continuing plan situation very comfortably.

But the byproduct of that is that terminated plan situation; yes, they could be overfunded.

Mr. HUTCHISON. I think our problem today is the financial people in companies have suddenly discovered this bonanza of surplus funds. That is where the problem lies, not in surplus funding.

Mr. SALISBURY. Peggy?

Ms. CRENSHAW. Peggy Crenshaw with Senator Eagleton. You mentioned that in 9 years you have received 250,000 notices of plan terminations. What percentage of these plan terminations are simply single employer corporations who are going out of business, and what percentage are dropping one kind of plan for another plan? What kind of plans are they substituting?

Mr. THARP. Let me see if I can answer some of those. The first question relates to how many companies are going out of business, simply disappearing from the scene. Eighty percent of our terminations come to us in the context of reorganization of some kind. Many of those are liquidations, but I would guess that a large proportion of that 80 percent are companies who ultimately come out of reorganization and will be available to be an ongoing business.

The remaining 20 percent are ongoing businesses and often are the result of abuse of the system. In some instances, the 30 percent of net worth limitation on our recoveries has made it pay, as it were, for a company to terminate its plan when it has low net worth and can hand a substantial liability to the PBGC.

There are questions there. Some of those concerns and abuses are addressed in the pending legislation.

Now the other question, successor of defined contribution plans or savings plans of some kind: I don't have at my fingertips statistics on that. We do, in our form 5310, which is filed by terminating plans, ask what their intentions are, whether they are going to set up a successor plan, whether they are liquidating, and so forth. I could get some numbers from those form 5310s which might answer your question.

But I'm not sure whether it would answer your question conclusively, for this reason: The plan administrator is only expressing

current intention. He or the company could change its mind the day after, and if they said they are going to have a defined contribution plan, could decide not to; or they might have said that they would have no plan at all and then decide that in response to employee concerns that they will have a plan.

So that we have found that form 5310 is not always indicative of what actually is going to be happening.

Mr. SALISBURY. If you could submit something on the record for that, it would be very helpful, I think, as well.[1]

Other questions or comments of Mr. Tharp? Thank you.

Mr. THARP. Thank you.

Mr. SALISBURY. Our final presentation on this subject is by Mr. Gerald D. Facciani, a member of the American Society of Pension Actuaries, the American Academy of Actuaries, and an Enrolled Actuary under ERISA. Jerry currently serves as the Coordinator of the ERISA Advisory Council to the U.S. Department of Labor, and President of Professional Plan Administrators, Inc., in Cleveland, Ohio.

[1] See p. 78.

Administrative Issues Impacting the Operation of Private Retirement Plans

(Presented by Gerald D. Facciani, President, Professional Plan Administrators, Inc.)

Mr. FACCIANI. I usually don't have the least controversial subject, but today it is a real honor, so I can just lean back and relax.

I am going to be going through my administrative issues paper. I thank Jamie for letting me go last, too. Thank you.

Jamie said to keep it simple. He said, "Don't get into a big discussion of J and S election procedures, joint and survivor election, et cetera. Give a broad view of the broad, basic locksteps of the plan administration process."

That is basically what my paper does. What I want to do is to address the plan design, plan installation, and plan administration areas. Any other function of plan operation, such as plan communication, calculation of specific benefits, et cetera, are subsets of these basic areas.

Additionally, an on-going plan will continue to be subject to redesign based upon changing business, regulatory and legislative circumstances, and from time to time, plans will be reinstalled to reflect redesign changes.

Finally, although the essence of administration never changes, the substance changes often due to the business, regulatory and legislative environment within which private plans operate.

Briefly, on plan design, our previous speakers today and in prior sessions have done an excellent job of detailing plan design features. All I want to underline is that plan design, at least in the private sector, should be a dynamic rather than a static function. It should be carried on year-in and year-out among the plan's sponsor, his advisors, and perhaps employee group to reflect the dynamic nature of the business, regulatory and legislative environment within which such plans operate.

To a direct extent, plan design impacts the installation and particularly the administrative operation of the plan. The important point is that proper plan design should anticipate future administrative contingencies.

Having said that about plan design, we will move on to plan installation, because once a plan is designed or redesigned, usually it is installed and reinstalled.

The installation process requires preparation of the listed material on page 2 and requires submission of plans to the IRS, and certain information to the Department of Labor and the PBGC. First of all, a plan document and trust agreement must be established, and these detail the plan provisions agreed to by the plan sponsor.

The plan sets out how the plan is to operate in practice, and who is to perform certain functions on behalf of the plan participants.

For example, the plan will designate a plan trustee, a plan administrator, and may designate an investment manager, a technical and clerical administrator or other persons to assist in the administration of the plan.

The plan sets forth the eligibility requirements, the effective date, benefit formula, retirement age, vesting schedule, forms of benefit payments, survivor language, ancillary benefits, authorized investment policy, and a myriad of other details associated with the continuing operation of a plan.

The summary plan description—SPD—is required by the Department of Labor to be distributed to all persons who become eligible to participate under the terms of the plan. The SPD is meant to be understood by the average plan participant, whoever that is, and is required to be updated periodically to reflect any changes made in the plan.

The plan is submitted to the IRS on a 5300 or 5301 form, depending on the type of plan it is. It is sent with the plan document and trust agreement and the notice to interested parties to obtain advance approval regarding the plan's provisions and to qualify the plan sponsors for deductions for contributions made to the plan.

Such 5300 series forms set up the basic plan provisions for review by the IRS employee plan staff, and based upon the IRS' review, the plan either will or will not be qualified.

The plan is deemed to be qualified when it meets statutory requirements related to the items I defined earlier.

The notice to interested parties is a notice which must be posted at an employer's place of business and which announces to employees the implementation of a plan or the amendment of an existing plan.

The notice provides employees an opportunity to make comments to the IRS District Director about the establishment of the plan or any amendments thereto.

The PBGC-1 form is the insurance premium form required by the Pension Benefit Guaranty Corporation for any plans that are defined benefit plans not exempted under the statute.

Charles Tharp already addressed the issue of the PBGC premium and so forth. I won't discuss that further.

Other communication material is often developed at the point of plan installation. Often, a plan sponsor will desire to communicate a plan's implementation in a more formal manner than simply by distributing summary plan descriptions. Thus, the employer may authorize development of a slide presentation or other employee communication materials to communicate the implementation or amendment of an existing program.

Communications of this type can range from colorful handout pieces, to slide shows, to videotape presentations, and the form and method of employee communication will often be dictated by the size and/or complexity of the plan being installed or changed. Employee communications services can be very expensive. For the most part, small plans will provide communication on a much more informal basis than large plans.

Moving on to plan administration, although it is a day-in, day-out process, which should be dynamic rather than static, administration involves a number of basic functions as follows, and as are

listed on pages 4 and 5 of the outline: Determination of annual eligibility for plan participation based upon an employee's age, hire date, hours of service, job classification, et cetera, and enrollment of eligible participants is usually the first step; determination of termination of employment based on the plan provisions; determination of the vested percentage in the benefit accrued to date of termination of employment; the calculation of available benefits under the plan according to the plan's benefit formula; the determination of forms of benefit payment and the time when payment can commence; determination of retirement status of the participant and whether such participant is eligible for normal or early retirement or deferred retirement; determination of whether or not a participant is eligible to receive benefits in advance of any stated earlier retirement age; distribution of any participation, beneficiary, early survivor annunity, or other participant election forms requiring a decision on the part of the participant; finally, the annual plan renewal process of data collection and asset reconciliation to balance the books for the plan year.

In addition to these basic administrative functions to be performed by the plan administrator or his delegate, as determined by the language in the plan document, the plan administrator must be certain to comply with all legislation and regulations in administering the plan.

For example, the plan administrator must annually file the plan annual report, which details the basic operational and financial aspects of the plan. The form on which this information is provided is form 5500 plus attachments.

The plan administrator is required under law to distribute to all plan participants a summary annual report, which purports to summarize the plan's financial activity for the year.

Employers must provide plan participants a statement of vested benefits if requested by a plan participant. It is routine practice for single employer plans to provide a statement of a participant's account or projected benefits on an annual basis to such participant.

Such statement would generally show the participant's name, date of birth, date of employment, projected retirement age, and estimated benefits under the plan.

Single employer plans are more easily able to produce statements of benefits than multiemployer plans, which often are subject to more complex recordkeeping. In the case of multiemployer plans, administrative offices are often established to aid participants and beneficiaries in determining any retirement or preretirement benefits to which they might become entitled. The same is true of administration of some single employer plans.

There are various timing requirements when certain information must be distributed to plan participants and beneficiaries. Administrators must be careful to comply with legal requirements in order to avoid not only confusion on the part of beneficiaries, but also fines or penalties which might be levied by the IRS, DOL, or PBGC in the event forms or information is not filed or disseminated on a timely basis.

Finally, who are the players in the administrative process? The plan sponsor might have a human relations department which handles these functions. It might have a committee to review oper-

ational daily aspects of the plan. These get very detailed, cumbersome, time consuming and often result in litigation. I am hitting the highlights, not getting into details.

The named plan administrator will usually have some or total responsibility over all legal, accounting, and other entities and may delegate administration functions to technical and clerical administrators.

Another player in the process is the plan trustee. This can be an individual or a corporate trustee. The trustee determines the prudence of the plan's investment policy and assists it in investment recordkeeping. Again, there are substitutes to this like custodian, investment manager, and so on.

Legal counsel usually prepares basic plan materials, amendments and other legal requirements, and can be either in-house or outside counsel.

Accountant, whether in-house or outside for routine plan accounting functions; however, outside independent accounting opinion is necessary for auditing the plan's annual report required by ERISA.

Last but not least, the actuary for defined benefit plans and other types of benefit plans. He usually prepares an annual actuarial valuation report. A discussion was had today by several of the other actuaries who did a great job of detailing what they do and basically the ideas of an actuarial report.

I really have nothing else to add to my position paper. I will be glad to answer any questions.

Mr. MCGRATH. James McGrath, Prudential. I know you were charged to keep your discussion simple, and you did list a lot of things that administrators do. I am sure that it isn't a complete list.

Mr. FACCIANI. No, it is not.

Mr. MCGRATH. There are many other things they have to do, and the list is growing longer all the time: compliance with section 415 limits; whether or not a form of benefit and the timing of the benefit meet the new tougher restrictions on elections; whether to withhold or not withhold; and how much to withhold; and when this Retirement Equity Act passes, a whole new subset of very difficult administrative chores.

Mr. FACCIANI. Absolutely. Some of us questioned the validity of these accelerated changes taking place in the legislative and regulatory environment. I would just hope there are some plans to administer in 10 years. If Congress keeps making changes with the rapidity they have made since 1974, there will be fewer and fewer.

Thank you for bringing it up.

Mr. SALISBURY. Jim Storey?

Mr. STOREY. I was wondering if you could comment from the administrative point of view on the trade-offs involved in choosing to provide disability coverage through an LTD policy versus covering disability exclusively through the pension plan in terms of the costs and the complexity of administration and the control over the determination of the disability.

Mr. FACCIANI. Well, in a pension plan, there really isn't an awful lot involved in the administration of disability benefits. The plan

would set out what the disability payments are, then the payment is made according to the formula.

Often, disability payments are set out separately in a group Long Term Disability program, simply for administrative purposes and cost considerations. Why take pension dollars from a pension plan, which are to be used to provide pension benefits, and use them to pay disability benefits out of the pension plan?

It is often considered administration-efficient to have a separate plan. I don't know if that answers your question. We don't see that it adds any administrative complexity to have a disability benefit in the plan.

Jamie?

Mr. COWEN. Jerry, is the administration of a defined benefit plan more difficult than a defined contribution plan? I gather there is a lot less involved in a contribution plan. Is that true?

Mr. FACCIANI. I think there is a lot more involved in a defined contribution plan. Not only do you have individual accounts, but you could have 10 or 20 subsets of those accounts, voluntary deductible and non-deductible contributions, rollover accounts, allowing loans from the account with individual accounting of the loans, and so forth.

If a participant gets the opportunity to invest in 10 or 12 different investment media, you have to allow for those. A plan has to allow for transfers among all those accounts. Very complex recordkeeping is involved in defined contribution plans.

Defined benefit plans are easy to administer. Since you are pooling the people, you have unallocated assets. It is not nearly as difficult as defined contribution by administration.

Yes, sir, Charles?

Mr. THARP. Jerry, this isn't a question so much as to administration as an opportunity to draw upon your experience in a related area. We keep hearing the relative merits of defined contribution versus defined benefit. I keep hearing from people like you who advise employers that they tend to advise one or the other. The statistics that I see indicate that our number of participants in defined benefit plans is growing at the rate of about 1 million a year.

On the other hand, I hear that employers are being advised not to start up defined benefit plans. Can you offer a comment on the trends and what advice you might offer or what different factors are involved?

Mr. FACCIANI. I don't know. Dallas may be able to shed some light on the macro picture with regard to participants going in and out of those various plans. I can give you my perspective as a guy who has his feet in the dirt everyday in Cleveland, Ohio, who talks to plan administrators, and I can tell you the advice I am giving a lot of them; and that is, that if Congress continues to mandate additional complexities in the defined benefit area, and with plan sponsors looking at limited availability of reversions, and if regulation becomes more and more onerous, as it has under TEFRA and some of these other women's pension equity legislation, some of the other things being discussed, I really think, at least in the field, we are seeing a real movement away from defined benefit plans to defined contribution plans, simply because employers aren't going to put up with it anymore.

At least in the small to medium sized plan area, which represents 100 percent of the 98 percent of the well-funded plans you address in your paper, these guys are tired of paying the price for underfunded plans; they are tired of having premiums increase from $2.60 to $7. So in the field, we are definitely seeing a shift away from defined benefit plans to defined contribution plans for a whole host of reasons, and it is a shame, because the defined benefit plans have been historically the cornerstone of the retirement income security delivery system in the United States.

Yes, sir?

Mr. BITTKAU. Manfred Bittkau with UAW. Jerry, being a third party administrator, how do you view the proposals to have the contingent survivor or potential surviving spouse sign the option or reject it, if that's what the employee does?

Mr. FACCIANI. I have mixed feelings. Basically, I think it is a good idea. The reason is that, again, since I am in the dirt everyday, I get the phone calls and talk with the participants who don't want their wives to have anything if they die. The guy has got a girl friend maybe, and he doesn't care about his wife. I'm serious. These are real-life situations. These are the considerations that were made when they discussed all this stuff last year. I think it is a good idea.

I think that the complexities associated with it are offset by the good things that are going to happen as a result.

But I think some of the other things in the women's equity legislation are absolute no-gainers. They will not do anything for anybody except the women's groups that proposed them, and they will just complicate administration and in many cases, lead to the termination of defined benefit plans.

Mr. SALISBURY. Other questions or comments?

Jerry, I have one. One of the topics throughout the four forums has been looking at what private employers do in the way of plan design and the feeling that the Federal employee, at minimum, should do as well as the private employee does in plan design. Looking at cost comparisons and those types of issues, in the course of the presentations and the discussion today, one of the things that was mentioned by Denny Snook and in the follow-on comment that Dave made, is that in the way that—what I thought I heard them saying was—in the way that the Federal Government now chooses to fund its pension program, it could almost be described as a rolling crap game for the Federal employee.

But I heard them saying it makes absolutely no difference whether an attempt is made to advance fund the program or just increase the Federal debt and bounce it around, because the only thing that Congress really focuses on is how much has to be appropriated this year to pay this year's benefits under the program, because there is no real trust fund is what I heard them saying. Even if there is $100 billion, it is in securities. The Government would have to redeem, so that is not their focus. Their focus is the other way.

Is there a comparison here that almost takes that the next step? Is one alternative that the only way the Federal employee can truly have benefit security is if the program has to truly be funded and the money is put someplace where it is outside the realm of

this annual Federal appropriations battle—administratively speaking?

Mr. FACCIANI. We all want to get out of here by 5, I think. Dallas, that is a loaded question, and I appreciate it. Thank you.

All I can say is that in the private—again, out there talking to companies and talking to plan sponsors, we address advance funding, which, we feel, is prudent and essential in the private sector.

The discussions always come up about Social Security being a pay-as-you-go system, and some employers know about the Congressional retirement system and the fact that it is pretty much pay-as-you-go. They know about the military system. I have a real problem with arguing with the people who take the position that we are mortgaging our future by not paying attention to amortizing these liabilities systematically the way we do in the private sector.

Also, I have a real problem, personally, with all the tax debate taking place on the Hill which seeks to carve up the employee benefit landscape, which is now being discussed about taxing fund earnings and taxing employer contributions, when such contributions and earnings are being used to prudently give retirement benefits to Americans on the one hand, and then on the other hand, looking at the huge liabilities of these Government sector plans.

I think all plan sponsors do, too. I think really, in a very real sense, a lot of them are throwing up their hands and saying, If Congress is going to continue to contract our ability to establish plans and provide security for us and our employees, then maybe we won't have plans and will just look out for ourselves."

I don't know if I answered your question, but it is such an open question, I could spend an hour talking about it. Would you like to add more to it?

Ms. BARBER. I didn't understand what you said, because I thought I agreed with you and your interpretations of what they said. This business about the special issues that the fund owns: They are as real as any other debt securities of the United States. When we were talking about T-Bills that you would go out and buy, for example, they are debts of the U.S. Government, whether they are in our fund or the private citizen has gone out and bought them.

This whole notion that a Treasury note is less real because it is in the fund doesn't make a whole lot of sense to me. The proposal earlier was that we sell more T-Bills to the private sector so we could raise money and then put it back out in the private sector.

If Treasury securities are so unreal, why would we expect private citizens to buy them?

Mr. SALISBURY. I think you disagree with what Denny Snook was saying. The crux of what he was saying is that it was irrelevant whether there was this mass of legitimate Government debt and whether you said the system was fully funded, if it was all residing in Government debt instruments, because when push came to shove, the only thing on an annual basis the Government focuses on is how much they have to appropriate to pay this year's benefits.

I don't know if he is right or wrong in making that assessment, but if that is the case, it starts to move in a direction of wondering

what the relevance of a lot of these issues is, and that is all I am trying to get at.

It is the reason I was trying to get some of the other speakers to focus on his assessment and his comments, because I think they lead you in a direction that is contrary to what you are saying.

Ms. BARBER. It is possible I misunderstood him.

Mr. SALISBURY. Jim Storey?

Mr. STOREY. Just to correct the record on appropriations, Congress doesn't have to appropriate funds for current benefits, because benefit outlays flow from the trust fund assets which are large enough to accommodate much more than a year's benefits.

Mr. COWEN. The real issue is when is the taxpayer affected by the plan or when does it affect the markets?

As a practical matter, the way the system works now, until the benefits are paid, the system has no macroeconomic impact. If we fully funded the Civil Service Retirement System in the way it is funded now, with Federal Government securities, if we all of a sudden just plopped in another $500 billion into that fund and said, it is now fully funded forever, it would not have any impact.

My own personal opinion is that the only way to avoid the concept of intergenerational transfers is to fund the system through the marketplace where real money is contributed. In other words, current taxpayers' money would be stored away in an asset type of concept.

Ms. BARBER. Jamie, it isn't current taxpayer money; it is current debt, new debt created by selling T-Bills.

Mr. COWEN. It doesn't have any impact on the deficit.

Ms. BARBER. I understand that, but you want it to have an impact by going out and borrowing the money so you can funnel it through the fund and put it back out there?

Mr. COWEN. Yes. I think it is more proper to do that.

Ms. BARBER. You are saying it matters who holds the debt, whether the fund holds the debt within the Government or whether the private citizen holds the Government debt through buying more T-Bills. It is debt anyway, unless you concurrently raise taxes, and when you introduced your bill, I didn't see the tax bill to go with it.

Mr. SALISBURY. Andy?

Mr. RUDDOCK. I think what is confusing us here is the way the budget operates. Actually, the entire Civil Service retirement fund has already been appropriated for the payment of benefits and administrative expenses. As someone said, it is not necessary for Congress to appropriate money to pay benefits.

On the other hand, the only way in which the retirement transactions affect the bottom line of the budget is the extent to which benefit outlays exceed amounts deducted from the salaries of employees.

Everything else is interfund transfers; they are entries that are made on the books. The crunch doesn't come—the taxpayer doesn't have to come up with cash—until it is necessary to convert securities into cash to pay the benefits.

So it is awfully difficult to avoid intergenerational transfers under the present budget setup.

Mr. COWEN. Andy, let me ask you a question, though. If the money was suddenly taken and invested—in other words, the current contributions, instead of being held internally were held externally, would that not affect the taxpayers or borrowing or something of that sort?

Mr. RUDDOCK. The first effect you would notice would be that every dollar you put out for investment in private securities would be an expenditure or an outlay under the budget.

So you could just discombobulate the hell out of the bottom line of the budget by sending retirement funds out for investment in private industry.

Mr. COWEN. Right. What I am saying is—I understand that, and I agree with it, in my opinion—what I am saying, though, is wouldn't that eliminate this so-called intergenerational transfer concept that we have been talking about?

In other words, the issue has been that no matter how you fund the Civil Service system now, the taxpayers are going to get hit later regardless, because right now they are not having to come up with anything.

Ms. BARBER. Doesn't the taxpayer get hit when they buy a security and in 15 years it matures? You are dealing with debt, and it will have to be paid whether it is held by some plan or by a private citizen cashing it in.

Mr. SALISBURY. There is a difference. I think what Jamie is getting at—and you get into the apples and oranges because of the way the bookkeeping is done. If it is paid at that later point in time when someone cashes in the bond, that is a debt transaction that has nothing to do with the payment of the pension benefit.

You are able to very explicitly differentiate between what the Government is spending on the provision of retirement income for Federal Civil Service workers as compared to what the Government may be spending in separate transactions.

You can then get to the real cost comparisons.

Ms. BARBER. Dallas, it isn't when you had to sell the T-Bill in the first instance to get the money to put into the fund.

Mr. SALISBURY. No, because then the Government is having to make a real expenditure rather than a bookkeeping entry. They have made their pension expenditure, and at some point in time, there is going to be an action related to debt securities, but that is not any longer a pension expenditure. It is just trying to begin over time to do it funding-wise and bookkeeping-wise so that when you are dealing with real dollars versus bookkeeping entries, it is clear. Would that approach insure to the benefit of the employees in terms of more real benefit security or not? I don't know the answer.

Howard?

Mr. WEIZMANN. I'm Howard Weizmann from the Sun Company. For many years, the private sector had a similar kind of debate concerning the contribution by an employer of its own notes to a defined benefit plan. The cases reached the courts and there was a split in the Circuits that went all the way up to the Supreme Court.

It was finally decided that an employer, even a validly created solvent employer, could not satisfy its pension obligations by con-

tributing its own notes. I think it is precisely the same issue. Although the issues that were broached were purely legal and not financial, some of the reasons upon which the ultimate decision rested are precisely the reason why you would not want the Government giving, in effect, its own notes to the pension plan; in effect, it is an illusory transaction. Even though it ultimately translates to actual dollars, it doesn't create an asset that is redeemable at the point of contribution for benefits.

Mr. SALISBURY. Gray?

Mr. HUTCHISON. Dallas, don't we have a comparable situation here to an individual who lives off of credit cards? I mean that it is a paper transaction until they all come due. Then he just runs out of money.

Of course, he can take bankruptcy. I think we have the same problem here. You can clearly identify the cost as fixed. At least we are beginning to identify what it costs to operate, and then we will have to address the problem and start to live within our means.

We cannot go on forever and ever, despite what some of my ex-Harvard buddies say, letting the debt go on and on up. We just can't make up. We can't support some of the downs and live on the ups but not on the downs.

Mr. SALISBURY. I think it hits in the way Howard and others have noted. It does relate to a security issue; that is, is there real money there, or do you end up having to effectively raise money a couple of different times. Charles Tharp's presentation made me think of it most particularly in the sense that the Government has mandated an employee retirement income security act with some many advantages and some of the disadvantages that Jerry touches on, but many advantages, to assure benefit security; to assure that Howard's situation cannot exist; to assure that the pension money is real money.

Then the Government has gone the next step and created the Pension Benefit Guaranty Corporation to say not only is it going to be real money, but it is going to be backed up, and it is going to absolutely guarantee benefit payment, regardless of the financial status of the sponsor.

The thing I haven't focused on as clearly until the presentations today, and then the back and forth—and Andy's comments reinforce it—the bookkeeping nature of what is happening with the Civil Service pension is it raises an issue: Is that the way to truly provide benefit security in any situation where you are funding through bookkeeping entries rather than through real money?

It is an issue. Dave, you had something?

Mr. DELQUADRO. Just two points. I think if you try to synthesize the earlier discussions, it comes down, with regard to the Civil Service retirement trust fund, as follows: There is this account which gets BA—budget authority—from a number of sources. That account doesn't track the liabilities of current employees or the liabilities for current retirees separately. It is a bridge, if you will, from a so-called static 14 percent contribution rate and a dynamic 36.5 percent contribution rate. It isn't an accurate presentation of either the liabilities of the current workers or the liability for current retirees. But it is an accurate presentation of the money being

paid out. So one function that you can readily use the trust fund for is to say how much money are we really paying out to retirees.

You can't really trace, unless you are crafty, how much of that is coming from the fact we just had a cost-of-living adjustment of 3.9 percent, or that we had a salary increase of 4 percent.

The next question, then, is, should the Government issue more U.S. securities and take advantage of positive return differentials? That is, the Government-issued securities have less risk and have an X percent rate of return, and then the Government is able to invest the moneys generated by the securities sale and receive an expected rate of return of X plus 2 or X plus 3 percentage points.

Then the question becomes—irrespective of whether or not this applies to Civil Service retirement or Federal highways or military retired pay—is this appropriate?

Do you buy into the logic that the Government should operate as a bank? By accepting a certain amount of risk, the Government would borrow money at a relatively low rate of interest and then invest it with the expectation of realizing a higher rate of return, and thus make money. I think basically, those are the two points, after all is said and done, that we were trying to point out.

Mr. SALISBURY. I think that comes back to what Howard is saying. The question I am throwing out is: To what degree should the Federal Government, as an employer, in providing retirement income security to its employees, be allowed to act differently from the way in which every other employer is required to act?

When push comes to shove, what does that difference make in terms of the real security for the retiree who is getting the benefit today? You point out that the only number you can truly believe is what was this year's gross value of benefit payments. What was the average and what were the levels? For the worker who today is 35 or 36 and who has a long way to go to age 65 and wants to know that the pension will really be there. Should this be treated as a pension retirement income decision, or as the equivalent of a "how to fund highways" decision?

The subject is benefit security of a retirement benefit. Does that demand that the Government behave in a different way? Should that fit into the equation in designing a prospective Civil Service retirement program for new Federal hires?

Mr. DELQUADRO. I agree. We are not arguing, but I think what we are also avoiding is this notion of fundability. If the Government gets money and it comes on budget, then there is a strong probability it will be spent. The money that you supposedly have to pay retirement benefits can be used by the Government for any other program unless you can establish some idea of ownership. I don't know that we have addressed that completely.

Because you don't have a defined contribution plan, ownership becomes indefinite.

Mr. EICKMEYER. It is called a trust fund. It exists in the private sector.

Mr. JAYNE. No, I believe it doesn't exist in the same manner. I think what Dave is saying is that if you set up funding in a private sector company and allow it to invest strictly in its own securities and call it a trust fund as the Federal Government does, there is a tremendous unrecognized value to this situation in being able to

hold this money in a so-called trust fund. This is, of course, not done by the Federal Government for whatever purpose, and not just Civil Service retirement. It is also highways and everything else. To be able to finance its own debt by investing in its own securities and holding on to that money is an advantage.

We always make the comparison of the existing Civil Service Retirement System to the private sector. Let's look at the existing Federal retirement financial structure in terms of what if a private sector company was able to set up its finances in just this way? I think there are huge unrecognized benefits that the Government has in being able to hold on to its money in this way.

Mr. COWLES. At what cost in terms of benefit security?

Mr. JAYNE. That is the issue, and it is something that hasn't been looked at in quite this way before. Congress has not made its decisions in establishing a retirement system based upon income security issues.

Mr. COWLES. I am not an actuary or a lawyer; I am just a garden variety banker, but I heard this gentleman over here give a classic definition for a pay-as-you-go arrangement.

Mr. JAYNE. It is a unique arrangement.

Mr. COWLES. It is unique, but it is pay-as-you-go.

Mr. KEENE. I think it is a pay-as-you-went arrangement. What about employee contributions under the Civil Service Retirement System? Where are those moneys now? Because I guess of the total assets allocated to the system, $70 some billion, contributions with a fair market return must be more than that. What has happened in Social Security? What has happened to the employee contribution—taxes—in Social Security? Where are those moneys? It is a pay-as-you-went system!

Mr. SALISBURY. Andy?

Mr. RUDDOCK. But let's not fall into the trap of assuming that the Civil Service retirement trust fund has no value. I can't think of any retirement system in private industry that would not be overjoyed to have $100 billion in Treasury notes.

That is what the trust fund has. They have to be either special issues or securities purchased on the open market, but they are worth $100 billion.

Mr. COWLES. In relation to what accrued benefit? I don't know the number.

Mr. RUDDOCK. The unfunded liability on a dynamic basis would be somewhere in the neighborhood of $500 billion.

If the system were fully funded, the system would hold roughly $600 billion, at the present time, in Government securities. However, the so-called unfunded liability is just as much a debt of the United States as is the trust fund. The only difference is that it has not been formally recognized; it has not been made an acknowledged part of the public debt.

The Congress could appropriate $500 billion, which would make the total assets of the fund about $600 billion.

That wouldn't change the bottom line of the budget. It would change the public debt. It would just blow the limit, because it would increase the public debt by $500 billion.

Ms. BARBER. What the security issue comes down to, under a recurrent system, the security is the full force of confidence in the

U.S. Government, however you look at it. I wonder about the notion that having the money in the private sector would somehow insulate participants of the system from the machinations of Congress. I think it would simply change the locus of those machinations. What would happen is if the money were out there, Congress could not control the interest rates, but if it were earning a very high interest rate, maybe it would decide to reduce the Government contribution and rely more on investment return. So the ultimate replacement level and ultimate benefit that the person got would be different. I think it would be attacked in a different way. I think the bottom line is if you don't trust your Congress, then there is really not much hope for you here.

Mr. SALISBURY. Jim?

Mr. STOREY. Dallas, correct me if I am wrong. I want to clarify what benefit security really is in the private defined benefit plan. It is my understanding that what ERISA protects is the vested benefit entitlement of the individual worker, which, in the case of a 35-year-old, may be nothing or may be very little since the typical plan has a 10-year vesting requirement.

The 35-year-old has to depend on the good faith of the company, because he or she isn't really protected for anything other than what is vested at that point in time. Is that correct?

Mr. SALISBURY. There is a plan continuation assumption. There, you are right; there is no guarantee the plan will be continued. So there has got to be an assumption in any employer situation that the plan will be continued, I agree.

Other comments? Questions? Jamie, any concluding comments? It has been very interesting.

Mr. COWEN. Are you going to announce the next one?

Mr. SALISBURY. Be my guest.

Mr. COWEN. The next forum is on July 10. At the subcommittee's request, the General Accounting Office has been collecting extensive pension data of what is provided in the private and public sector. They will have those reports available for the July 10 forum, and presumably, they will be making a presentation at the beginning of the forum as to what their survey has found.

Then afterwards, presentations will be made on how certain elements of a pension plan affect three major plans: Defined benefit, defined contribution, and defined benefit with a contribution plan.

The usefulness of the forum will be to summarize the last four forums and put it into a framework which we can discuss.

With that, Dallas?

Mr. RUDDOCK. With the July 10 meeting summarizing all the other forums, is there a chance that we could get those materials a couple of weeks in advance—the GAO report and any other material you might get from the Congressional Research Service—so we can run over them, especially with holiday periods wrapped in there?

Mr. COWEN. We will do our best. We have always requested the information.

Mr. SALISBURY. Thank you very much.

APPENDIX

An Overview of Pension Funding, Investment and Administrative Issues*

Irwin Tepper
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This paper presents an overview of financial planning and policy setting for pension plans. It draws primarily on practice in the private sector, but some discussion of other retirement systems is provided where relevant. The discussion covers issues relating to both decision-making at the plan sponsor level and public policy.

The subject matter falls into three categories:

1. Funding
2. Investments
3. Plan Design

While plan design is a topic covered in other policy forums, I list it here to stress its financial aspects, and because discussion of funding and investment issues will necessarily involve plan design considerations. The linkages show up in a number of places. First, the choice of a defined contribution (as opposed to a defined benefit) plan resolves the funding issue. By definition, the defined contribution plan is always fully funded. This choice shifts the investment risk from the sponsor to the plan participant, having the obvious implications for investment

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policy. As will be discussed below in some detail, there is also evidence to suggest that a linkage exists between funding levels and plan redesign in defined benefit plans.

Prior to the 1970's plan sponsors spent relatively little time on pension planning and policy setting. Many of the key decisions were delegated to consultants, actuaries and investment managers. Plan assets and liabilities were too small to justify much of an in-house capability. The situation changed as costs, assets and liabilities grew to the point where they began to play a significant role in the financial structure of the sponsor. Impetus also came from the investment losses that accompanied the bear markets of 1973-74, the impact of the inflationary burst of the 1970's on liabilities and the responsibility imposed on sponsors by ERISA.

FUNDING

Traditionally, discussions of funding have relied on a comparison of funded vs. pay-as-you-go alternatives to meeting defined benefit obligations. In practice, however, virtually all major private pension plans meet the funding requirements necessary to qualify for special tax treatment. For sponsors of these programs the decision is not <u>if</u> but <u>how much</u> to fund. A wide range of discretion exists within the IRS regulations of acceptable funding schemes. It is, therefore, useful to think about a continuum of possible funding levels.

The remainder of this section discusses the funding decision from the perspectives of both the plan sponsor and public policy. The private pension system will be the focus of the discussion but, in consideration of the fact that many of the problems of underfunding exist in social security and public retirement systems, some remarks about these retirement programs are included. The factors to be considered in setting funding policies include:

1. Benefit Security
2. Tax Treatment
3. Saving/Capital Formation
4. Intergenerational Transfers
5. Recognition of Pension Cost
6. Ownership and Control of Assets

Benefit Security

In the absence of funding sufficient to meet all pension obligations, beneficiaries must rely on the assets and earning power of the plan sponsor. At present, participants have a claim on the sponsor inferior to that of the sponsor's creditors. It is even possible that the beneficiaries will have a claim junior to that of the stockholders of a corporation since distributions to the latter could take place before all pension claims are settled. For this reason, some sponsors feel that they have a moral obligation to set aside assets to meet, at least, the vested liabilities of the plan. It is also the reason for the

inclusion of funding and insurance regulations in pension law.

Pension funding leads to the accumulation of a segregated pool of assets which guarantees the sponsor's obligation. In theory, funding is the optimal way to secure benefits, providing that the sponsor is forced to keep enough assets in the pension fund at all times to meet the liabilities that are accumulated. In practice, this does not happen. Sponsors utilize the discretion that exists to adjust funding levels when it is in their best interests to do so. As a general rule, sponsors experiencing earnings and/or cash flow problems can be expected to borrow from the pension fund as opposed to their creditors and investors. As an article in the Wall Street Journal of October 29,1981 described it, "Companies are finding ways to cut back on pension costs. More often the companies are financially troubled."

In addition, sponsors are permitted to adjust to pension fund gains and losses over relatively long time spans. This being the case, the investment policy of the fund plays a big role in benefit security. More risky investment policies produce greater uncertainty in future funding status.

The level of funding can also have an impact on benefit levels. Pressure from participants to improve benefits is more likely to occur in plans that are well-funded. The presumption is that the sponsor can afford the improvements. This may be true if an event such as superior investment performance over a reasonably long

time frame has occurred. However, if the plan became well-funded because of increased contributions, then the sponsor is not necessarily in a position to improve benefits. Assets have simply been transferred from the company to the fund. (As discussed below, the sponsor does obtain tax benefits which may enable it to afford higher benefit levels.) The pressure to improve benefits is often cited by sponsors as a reason for not liberally funding their pension programs.

At the other extreme, is the inability of the sponsor to meet the current level of benefits because it could lead to a restructuring of the plan provisions. While this has happened in the private sector, the current focus of attention is on the Social Security System.

At present, the premiums paid to the Pension Benefit Guaranty Corporation are not adjusted for the level of unfunded liability that exists. This results in the subsidization of sponsors with poorly funded plans by those that have funded to a level sufficient to provide a high degree of security.

In the private sector, plan participants are not completely without recourse in the event the plan sponsor does not fund in sufficient amounts to provide a secure plan. The participants can demand higher wages to compensate them for assuming more risk. The wage increases could be allocated to private saving as a hedge against potential losses of pension benefits. If this mechanism worked well then provision of benefit security would

not be of particular concern; the sponsor would compensate the participants for any potential loss. In practice, the adjustment process can take a long period of time and equilibrium may not be approached for certain classes of beneficiaries. It is also clear that some beneficiaries may not possess the power to negotiate compensation.

The provision of benefit security is probably the biggest reason for having a well-funded pension plan. Other systems, such as "book reserve" however, could achieve a high level of benefit security if they are properly structured and operate under well-conceived regulation.

Tax Treatment

The bulk of corporate pension plans are qualified to receive special tax treatment. Specifically, contributions to the pension fund, subject to maximum limitations, are deductible at the time they are made. Earnings on pension fund investments are not taxed. Ultimately, the corporation that funds its pension program will pay higher taxes than it otherwise would have had it not funded the pension plan. These higher taxes stem from the fact that, in the future, tax-deductible contributions to the pension fund will be reduced by an amount equal to the principal plus interest accumulated in the pension fund.

The two tax provisions provide the sponsor with the opportunity to defer taxes. These deferrals are interest-free loans from the

government. The firm benefits from these deferrals because it has money that would otherwise have been collected by the government to invest in the pension fund. The net result of these tax benefits is that it permits the sponsor to earn a tax-free rate of return on its investment in the pension fund. This rate of return will almost always compare favorably to other corporate opportunities and is one reason why companies fund more than they are required to. The simplest way for a company to take advantage of this tax situation is to raise debt to finance the contributions to the pension fund and to invest pension fund assets in bonds. These transactions will produce a completely arbitraged position in which the firm earns tax-exempt income on its investment and pays tax-deductible interest costs on the financing.

The tax benefits increase the wealth of the sponsor to the detriment of the government. The government will either have to raise taxes or reduce spending if it is to recover its lost wealth.

Saving/Capital Formation

When a plan sponsor makes discretionary contributions to a pension fund it is normally because it is a desirable use of capital. The factors that enter the decision-making process include the sponsor's tax position, the need for capital internally, the availability of capital and the risk position of the sponsor (and the attendant possibility of plan termination).

To finance these outlays, the sponsor must 1) issue securities, 2) reduce dividends and other distributions or 3) liquidate assets.

The positive effects of pension funding on national saving and capital formation are largely offset by the cash flows that are associated with financing. The explanation of this not-too-well publicized phenomenon is best explained in the framework of macroeconomic analysis. Saving equals investment is a fundamental identity of national income accounting. Stated another way, the physical amount of new capital produced equals the amount of national income not consumed. This relationship is not altered by increases or redistribution of the amount of financial claims outstanding. As discussed below, pension funding is likely to affect these variables to a much greater extent than it is to affect capital formation.

These propositions are easy to see for the case where the plan sponsor issues securities to finance pension outlays. The sponsor is both a buyer and seller of securities. Securities purchased are assets of the pension fund; securities issued are liabilities of the sponsor. In terms of net investment, these transactions cancel out. If the sponsor finances pension contributions out of cash income, funding will result in a direct increase in corporate saving. The holder's of the sponsor's stock, however, will receive reduced distributions. They can be expected to recover the lost income by decreasing their own

personal saving-if they react rationally to the decision of the sponsor. These stockholders will realize that they have an increased investment in the company vis-a-vis the pension fund; hence they can liquidate some of their holdings and still have the same total level of investment. When this happens, there is no increase in total saving, but there is a reduction in the amount saved directly by individuals and an increase in the amount indirectly saved by them via firms whose equity they hold. This theoretical proposition may not accurately forecast behavior under these circumstances. Finally, if firms transfer assets to the pension fund there is no change in saving.

The arguments presented above leave out the effects of taxation. Tax effects are the major mechanism by which funded pensions can affect saving. As the section of this paper dealing with tax effects describes, funding initially increases corporate saving and reduces government saving. In the aggregate, these effects cancel out. Funding does, however, transfer wealth from the government to the plan sponsor. The response of the government to the losses in immediate and long term revenues is important to determining the effects of funding on saving.

The point to keep in mind is that the first-order effect of funding pensions on saving/capital formation is not likely to be material because of the financing requirements funding imposes. Any significant effect must come from behavioral responses of parties affected by the funding decision.

Intergenerational Transfers

A major concern with unfunded or poorly funded pension systems is that future generations will pay for benefits granted to the current generation of participants. In a private pension plan, the most significant intergenerational transfers that might take place concern present and future stockholders of the firm. If a company does not maintain a well-funded plan, there is the chance that the current generation of stockholders will sell their stock to the future generation at a price that does not reflect the true value of the company's unfunded pension liability. With sufficient disclosure, however, this is not likely; future generations of stockholders will not be worse off if the pension plan is poorly funded. When the existing generation of stockholders sells its stock, buyers will pay less for it than they would have had the company fully funded its pension obligations. In an efficient capital market, the effects of pension funding decisions will be capitalized in the value of the enterprise. In recent years, analysts and investors have been paying more attention to corporate pension plans in their analysis of firms. This activity has made the marketplace more efficient with respect to valuing pension assets and liabilities.

In public retirement and social security systems the mechanisms which exist to counter intergenerational transfers are much weaker. In a public retirement system, lack of funding reduces current taxes at the expense of increasing the future tax burden.

To the extent that property values reflect differential tax rates, the value of property sold by current owners to future generations will reflect the current generation's funding decisions. In the Social Security System, one has to rely, in part, on the tenuous proposition that the value of the employers' enterprises will reflect the payroll tax burden that is imposed on them by the System.

Recognition of Cost

One often-stated benefit of funding is that it forces sponsors to recognize the cost of their pension programs. This assumes that pension cost is equated to cash contributions. While this is the case for many pension plans, there is no good reason why pension expense should be tied to cash outlays. The accounting profession, in their much-discussed "Preliminary Views", have taken the position that accrued pension expense should be a separate calculation from funding calculations and, further, that the method for recognizing expense should be standardized. Separation of cost recognition from funding will, most likely, force sponsors to keep two sets of books but this would not be an overly burdensome task.

It is possible that those who advocate funding to force sponsors to recognize pension cost want to impose the increased discipline of matching cash with benefit promises as opposed to simply making a book entry. This motivation would appear to be more in the benefit security than in the cost recognition category.

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There are differing philosophies concerning the most appropriate measurement of pension expense and acceptable actuarial cost methods exist to implement each of them. One view, adopted by the accounting profession, is that pension expense should be geared to the change in the liability from one year to the next. The adoption of this method leads to an expectation of rising costs for each individual employee both in absolute dollars and relative to payroll. This doesn't mean, however, that a rising cost pattern is to be expected for a plan covering a dynamic workforce wherein new entrants are replacing departures of older employees. An opposing view advocates that pension expense should be measured as a level percentage of compensation. Since the value of accrued benefits increases with age, this approach results in the accrual of higher costs relative to the value of accrued benefits in the early years of a worker's tenure, offset by lower costs in later years. Again, this theoretical pattern for the current group of employees, is not necessarily what can be expected for a dynamic workforce.

Ownership and Control of Assets

In recent years, the recapture of surplus pension assets by sponsors has stimulated a good deal of public concern. The issue being debated is "Who owns the assets of defined benefit pension plans ?". The position taken by many sponsors is that the liabilities are their legal obligations and, therefore, the assets are their property. The threat that excess assets might

revert to the plan's beneficiaries is a factor influencing sponsors to fund at minimally acceptable levels.

INVESTMENTS

The management of the assets of defined benefit plans should be different from that of defined contribution plans. This is because the participant bears the risk in the defined contribution plan, not the sponsor. Since the age, wealth, objectives and other important factors that enter into investment decision-making vary among the participant group, in a defined contribution plan it is often desirable to offer investment options so that they can tailor their own investment programs.

The management of defined benefit plan assets will be the focus of this section. The management of these investments is comprised of activities that fall in three broad areas:

1. Investment Policy
2. Management Structure
3. Performance Review

Investment Policy

The investment policy of most major pension funds has shifted to reflect changes in goals such as "maximize return subject to prudent levels of risk" and "exceed the performance of the S&P 500" to more refined and measurable objectives. These changes reflect the increasing emphasis on matching investment goals to the plan's liabilities and the financial goals and resources of

the sponsor.

Probably the most important change that has taken place is in the internalization of the asset allocation decision. Traditionally investment managers were given discretion to vary the fixed income/stock ratios of the funds that they managed. In contrast, plan sponsors now set target long term asset mixes based upon the desire not only to maximize return but also to control the risk level for the fund relative to the plan's liabilities.

The development of an asset allocation policy entails the following steps: 1) identify asset classes, 2) develop assumptions, 3) calculate "efficient" asset allocations, 4) project returns, 5) link asset allocation to the plan's liabilities and 6) link asset allocation to the financial strategy and resources of the sponsor.

There has been a move in recent years to expand the list of asset classesin which pension funds invest. In addition to domestic equity and fixed income securities, sponsors now invest in international securities, real estate, venture capital and other non-traditional asset classes. Sponsors have also expanded the areas within the domestic equity and fixed income markets in which they invest (e.g. investing in smaller capitalization companies).

Analysis of investment alternatives requires the formulation of assumptions for the following variables: inflation, real interest

rates, expected returns for each asset class, risk of each asset class and degree of correlation, or comovement, among asset class returns. The quantitative measurement of risk, as the standard deviation or volatility of rate of return, has become an increasingly accepted practice. The use of correlation in conjunction with risk measurement to arrive at a quantitative measure of diversification obtainable through alternative asset allocations has also become standard. The approach taken to formulating assumptions usually starts with an analysis of historical relationships. Modifications are made based upon fundamental analysis of each of the asset classes.

Some asset allocations, because of superior diversification, will dominate others in terms of providing better expected returns at each level of risk. Computer programs exist which assist the sponsor in identifying these alternatives given the assumptions made about the economy and capital markets. The asset allocation target for the fund will be selected from one of these "efficient" allocations based upon the sponsor's ability and willingness to assume risk.

Projections of rates of return under most likely, best and worst scenarios are usually produced for the asset classes under consideration. The projections are done for both nominal and real returns and cover both short- and long-term horizons. The results assist the sponsor in selecting an asset mix that best meets its needs and preferences.

The ultimate goal of accumulating assets is to pay pension benefits. Quantitative techniques exist which permit the sponsor to see the effects of asset allocation on both the plan's funding ratios and its cost. Again, the data is presented for most likely, best and worst scenarios. Bond "immunization" and "dedication" strategies, which involve construction of portfolios that have cash flow payouts closely matching the outlays needed in the future to pay benefits to groups of plan participants, is the purest form of matching liabilities with assets.

In most cases, gains and losses on pension fund assets will be borne by the plan sponsor. Therefore, the financial strategy and resources of the sponsor are a determinant of the level of exposure that the sponsor is willing to take in the pension fund. One tool for assisting in this analysis is the "augmented balance sheet"; this is a presentation of the assets and liabilities of the pension fund together with the sponsor's assets and liabilities. The augmented balance sheet identifies such variables as the leverage in the total financial structure of the sponsor with the pension plan included.

Management Structure

Once an asset allocation decision is made, the next step is to put an investment organization in place. Key questions that arise in this activity include 1) will money be managed internally ? will external managers be used ?; 2) will passive management, active management or a combination of the two be adopted ?; 3)

what manager styles will be employed ? will balanced or specialist managers be hired?

Most sponsors rely heavily on outside investment managers. Those that have in-house operations are typically utilizing relatively passive investment strategies and often the internal activity is limited to fixed income investments. Sponsors that internalize investment operations have large enough pools of capital to justify going to the expense of setting up an investment organization and do so, in part, to better understand the activities of their external investment managers.

The decision to utilize active vs. passive management is ultimately determined by the sponsor's belief about the extent to which the capital market is "efficient" (The term is being used here in a different context than it was used in the discussion of asset allocation decisions.). In a perfectly efficient capital market, where security prices are rationally set and reflect all available information, active management would not produce any risk-adjusted excess returns. Performance data fails to provide any conclusive evidence concerning whether active management can add value. A recent survey of managed equity accounts published by a leading performance evaluation service revealed that the percentage of actively managed accounts outperformed by the S&P 500 index in each of the last fifteen years ranged from 24% to 91%. Over the last five overlapping fifteen year horizons (1965-79 through 1969-83) the percentage of the active managers

outperformed by the S&P 500 ranged from 63% to 74%. These statistics are not adjusted for risk differentials of the managers versus the index. While the majority of the managers have been beaten by the index this does not prove that it is impossible to identify some managers who are better than average.

The key choice in manager styles is between balanced vs. specialist managers. Balanced managers invest broadly in their asset class so as to provide a diversified investment portfolio. They often also allocate assets across asset classes (e.g. stocks and bonds) in response to both their outlook for relative risks and rewards and to the asset allocation they believe the sponsor should have. The sponsor who has gone through the process of asset mix selection internally often prefers to utilize specialist managers. The latter typically concentrate within a subset of the asset class that their allocation represents. There are two reasons for using specialists. The first is to obtain better control of the asset allocation of the fund. The second is that sponsors feel the concentration of an investment firm's talent on a narrow subset of the market will produce superior investment results.

Performance Review

The performance review process is not limited to evaluation of the returns obtained by the various managers. Other tasks include review of the portfolios of the managers to see if they continue to reflect their style and allocation of cash flow to maintain

the desired asset allocation and manager structure.

PLANNING AND FORECASTING

Funding, investment and plan design decisions interact with one another to determine the financial performance of a pension system over time. An actuarial report provides a snapshot each year of the plan's operation. As traditionally performed, this valuation is not ideally suited for long range planning because three factors that influence a plan's course over time are not incorporated. They are:

1. New Entrants
2. Experience vs. Actuarial Assumptions
3. Plan Design Changes

Traditional actuarial valuations cover the current group of plan participants. They anticipate the departure of active participants usually for the following causes; turnover, retirement, disability and mortality. No anticipation is made for new entrants. Yet most organizations hire at least for replacement and the new entrant group has a material effect on the plan's finances.

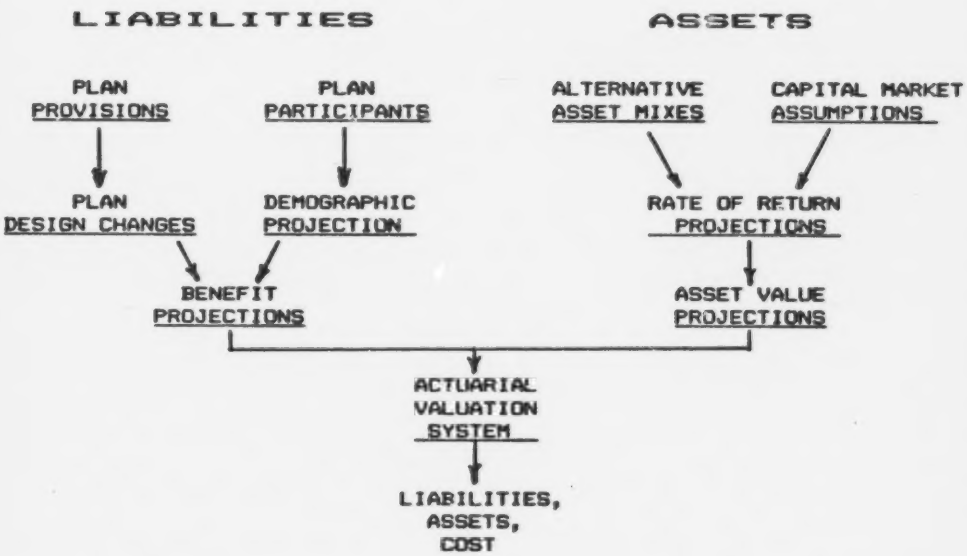
In all valuations assumptions are made the demographic events listed above and the following key economic variables; 1) inflation; 2) real improvements in salary such as productivity, merit and seniority and 3) discount rate. Unless these

assumptions are made to explicitly reflect current economic conditions, systematic deviations from targets (in actuarial terms, gains and/or losses) will occur. Many plans have adopted assumptions that, in aggregate, appear to be conservative with respect to the current economic environment.

Changes in plan provisions are explicitly factored into an actuarial valuation unless they are scheduled in the plan document. This factor is particularly important in hourly pension plans where benefits are based upon a flat dollar amount earned for each year of service.

In recent years, computerized financial planning systems have been developed. They incorporate the same methodology for valuation that is utilized in actuarial valuations but add the components necessary to make dynamic forecasts. A block diagram of a typical system is presented in the figure on the following page. These systems have been used by plan sponsors in the private sector to analyze the consequences of funding, investment and plan design decisions.

FORECAST VALUATION SYSTEM



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FUNDING THE DEFINED BENEFIT PENSION PLAN

James A. Curtis, F.S.A.

INTRODUCTION

Overseers of defined benefit pension plans review many different kinds of information. They seek investment advisors to improve the asset performance. Their accountant reports on the reasonableness of the fund accounting. Legal counsel advises upon the methods of maintaining the trust in accordance with the pension laws. The actuary monitors the pension fund, measuring assets and liabilities and advising on the annual cost and funding status. This discussion will focus upon the actuarial advice: to look at the elements used to develop the pension cost and funding status.

Consider a final average plan - that is the benefit payable at retirement depends upon earnings a few years prior to retirement, not upon the career earnings of the employee. Under this sample plan, the benefit accrues at 1.5% per year of service times the final average salary. For example, an employee becomes covered by such a plan at age 35, works for 30 years under the plan and retires at age 65. Assuming the final average monthly salary of $2,000, the benefit at retirement is 1.5% times $2,000 times 30 years of service, or $900 per month. See Figure 1.

TYPICAL DEFINED BENEFIT PLAN

BENEFIT = 1.5% OF FINAL AVERAGE SALARY
PER YEAR OF SERVICE

ENTRY AGE = 35

AVERAGE SALARY = $2,000 / MONTH

BENEFIT AT AGE 65:
1.5% × $2,000 × 30 YEARS

EQUALS

$900 PER MONTH

Figure 1

You will note that under this plan structure, no benefits are payable to the employee until retirement occurs at age 65. Thus, it is the duty of the actuary to provide an approach to accumulate funds to be available for paying the $900 per month benefit commencing 30 years hence.

The following illustrates visually the pension fund as a reservoir of assets:

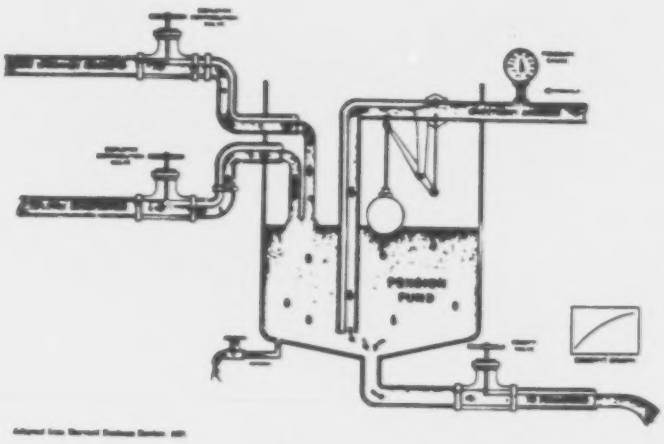


Figure 2

Deposits to the fund are made by employer contributions; additional inflow may be achieved if the plan provides for employee contributions. As a pension fund develops, and presuming a positive investment rate of return, then investment earnings also flow into the fund. These three major contributing factors provide the funds to pay the specified benefits under the pension plan.

From the bottom of the reservoir flow the benefit payments and expenses for administering the fund. Note that the reservoir fills with assets if the deposits come into the fund at a faster rate than payments go out. On the other hand, if the contributions and investment performance do not keep up, benefit payments and administrative costs will overpower them and the fund will diminish in size.

Thus, it is the responsibility of the actuary to monitor the contribution valves, the level of the pension fund and the rate of benefit payments to assure a proper funding of the plan of benefits. Stated mathematically, the funding process involves the continuous balancing of the following equation:

$$\sum \text{ACTUAL COSTS} = \sum \text{BENEFITS PAID PLUS EXPENSES LESS INVESTMENT INCOME}$$

Figure 3

Under this definition, the total cost of the pension plan is the total benefits and expenses paid, less the investment income earned.

WHAT IS DONE BY THE ACTUARY?

For the actuary to perform his duties, it is necessary to coordinate a great deal of information. At the outset, the actuary must identify the benefits provided by the pension plan. Having identified those benefits, he must gather the pertinent employee information to provide a basis for estimating future benefit obligations of the plan. Also, recall that the pension costs are related to the investment income earned by the pension fund and, hence, the actuary also needs the current value of the plan assets. With this information, the actuary then selects the necessary assumptions, the actuarial cost method and completes the computation of the pension plan costs.

Plan of Benefits

Generally, the plan document contains the benefit promises which the actuary considers in determining the current funding requirements for a pension plan. Although most plans have unique features, there are several items which the actuary normally focuses upon when reviewing the plan of benefits:

PLAN OF BENEFITS

- UNIT OF BENEFIT
- NORMAL AND EARLY RETIREMENT
- VESTING
- DISABILITY
- DEATH
- SERVICE

Figure 4

Unit of Benefit. The unit of benefit is the cornerstone of the plan of benefits. A plan may provide a flat amount per year of service, for example, $20 per year of service. Another approach could be a flat amount, which provides a minimum period, for instance, of $400 and 20 years of service. A common approach today is to provide benefits related to both years of service and a percentage of salary, where the salary may be a career average or a final average basis.

Normal and Early Retirement. Most plans provide a normal retirement benefit calculated by applying the unit of benefit commencing at a set age, such as 65. Typically, benefits are payable for retirement before the normal retirement age. To encourage early retirement, some plans provide that the benefit earned at the early retirement date will be paid without a significant reduction. Other plans provide that early retirement benefits are available, but only with a reduction to offset the additional cost of paying the retirement benefit sooner. The amount of reduction is a significant feature in computing actuarial value of benefits under a pension plan.

Some plans, in addition to providing for early retirement benefits, provide a supplement to assist an early retiree during the period between retirement and the date Social Security benefits commence. The actuary must recognize all types of retirement benefits in arriving at the actuarial costs.

Vesting. All pension plans falling under the jurisdiction of ERISA provide that a covered employee may become "vested" in his benefit and leave the plan with a right to receive benefits in the future. As an example, this may be after 10 years of covered employment under the plan. The vesting rule must be known by the actuary to properly account for the cost associated with an employee leaving the plan prior to retirement age.

Disability. Many pension plans provide some sort of disability benefit for employees who become disabled prior to their retirement age. For example, the plan may waive any early retirement reduction which would otherwise apply and pay the accrued benefit at disability. Features such as these are important to the actuarial determination.

Death. All pension plans covered by ERISA now provide a minimum death benefit if a covered employee dies during the early retirement period. The plan may charge the employee for this coverage but, more typically, the plan absorbs this cost. Many plans provide more than the minimum death benefit by extending coverage below the early retirement age or by providing a larger than required benefit. Of course, the actuary needs to know the plan provisions regarding death benefits to properly determine plan costs.

Service. How does the plan treat an employee's past service prior to the date that the employer introduced the plan? At start up, many plans grant each employee credit for past service with the employer. Also, amendments to plans which increase the benefit level may be introduced in a fashion to credit the higher benefits for past service. Features such as these affect the cost of the plan and the actuary must consider these provisions in determining cost.

Gather Employee and Asset Data

Having identified the significant plan provisions, the actuary must next consider the employee population covered by the plan. He needs certain information concerning the covered employees, such as age and past accumulated benefit credits. Furthermore, information regarding the employee's prospects of earning future credits (for example, the current covered earnings during the last few years) is often required.

Former employees who terminated with a vested interest have a claim to future benefits. Consequently, the actuary needs to know the age, the date at which future benefits become payable, the amount and form of such benefits. Similar information must be obtained for retired employees and beneficiaries in order to properly evaluate the cost of their remaining benefits.

In addition to the employee related data, the actuary must gather information regarding the current value of the plan assets. In this regard, it is necessary that the asset valuation be as of the same date at which pension costs are being determined. Typically, assets are valued at fair market value. However, other methods, such as amortized cost or recent average value, might be used to smooth asset values due to fluctuating market conditions.

Actuarial Assumptions

To compute the cost of any pension plan, it is necessary that the actuary select several assumptions. Figure 5 identifies several important assumptions and illustrates the effect upon cost for an increase or a decrease in the actuarial assumption:

ACTUARIAL ASSUMPTION	COST EFFECT WHEN ASSUMPTION IS: INCREASED	DECREASED
INVESTMENT RETURN	-	+
RETIREMENT AGE	-	+
MORTALITY RATE	-	+
DISABILITY RATE	+	-
SALARY INCREASES	+	-
TRUST EXPENSES	+	-

Figure 5

Investment Return. This is one of the most important assumptions made by the actuary. Regardless of the assumed rate, the actual rate earned by the underlying funds controls the ultimate level of pension costs. Therefore, the actuary will usually adopt a realistic rate which he feels can be achieved in the long run with a considerable degree of certainty. To the extent that actual investment returns are higher than assumed, then future pension costs will be reduced.

Retirement Age. The plan may provide a full benefit when an employee reaches age 65, or possibly after 30 years of service without regard to age. But when will they actually retire? Initially, the actuary will make an intelligent "guess" as to the probability that an employee will retire at a given age. As experience develops, this assumption may be changed. For example, a plan amendment may liberalize the early retirement benefits resulting in more employees retiring early.

Mortality. Usually, the actuary will base his assumption upon a mortality table published by the Society of Actuaries. From a cost point of view, mortality affects both the probability of retirement benefits becoming payable and how long a benefit is paid. Normally, a male at age 65 can be expected to survive approximately 15 years. Increasing the mortality assumption decreases the cost of the pension plan.

Disability. If the plan provides a benefit upon disability, there are two aspects of this assumption upon plan costs. First, what is the probability that an employee will become disabled and, hence, eligible for disability benefits? Furthermore, once an employee becomes disabled, what is the probability that he will die or recover, thus, how long will the disability benefit be payable? Since statistical information for a particular plan is usually based upon a small number of disabled employees, the actuary will normally rely upon statistics provided by combining several plans for purposes of selecting a disability assumption. Since becoming disabled triggers the payment of a benefit, an increase in the disability rate assumption increases plan costs.

Salary Increases. For pension plans in which the benefit is related to employee compensation, an increase in salary increases the cost of the plan. Normally, the salary increase assumption is selected to be consistent with the investment returned assumption. For example, an 8% investment return and a 6.5% salary increase assumption would be typical. The 1.5% differential between the interest and the salary assumption is a critical aspect in the overall pension cost. For plans with benefits

related to final average salaries, an increase in the difference between the investment and the salary assumption has a substantial impact upon plan cost.

Trust Expenses. The expense of maintaining the pension plan is similar to a benefit cost and hence an increase in the trust expense assumption increases the cost of the benefit plan.

Select Actuarial Cost Method and Compute Costs

After the assumptions are selected, the actuary must then choose an actuarial cost method and compute the plan cost. To illustrate the various methods, let's use a simplified set of assumptions.

ACTUARIAL ASSUMPTIONS

SALARY/WAGE INCREASES	0%
INVESTMENT RETURN	0%
DISABILITY	0%
WITHDRAWAL	0%
DEATH BEFORE 65	0%
EXPENSES	0%
LIFE EXPECTANCY AT 65	15 YEARS

Figure 6

Furthermore, to keep our illustration simple, the determination of cost will be based upon a single employee with the following characteristics:

HYPOTHETICAL EMPLOYEE

SALARY/WAGE	$20,000
SOC SEC BENEFIT BASE	$12,000
CURRENT AGE	40
AGE AT HIRE	35
PAST SERVICE	5 YEARS
FUTURE SERVICE AT 65	25 YEARS
TOTAL SERVICE AT 65	30 YEARS

And finally, the plan will provide a retirement benefit based upon final average salary and years of covered service, with a higher benefit rate for salary above the Social Security benefit base.

PLAN PROVISIONS

NEW PLAN EFFECTIVE NOW

CREDIT GIVEN FOR SERVICE BEFORE AND AFTER EFFECTIVE DATE

1% × SERVICE × HIGH 5 AVE SALARY UP TO SSBB

plus

1.5% × SERVICE × HIGH 5 OVER SSBB

Figure 8

Having selected our actuarial assumptions, gathered the employee data and reviewed the plan provisions, the actuary is then prepared to calculate the actuarial cost. Due to the simplified assumptions which we have selected for this illustration, the only benefit to consider begins at age 65. The benefits which will be paid are calculated as follows:

BENEFIT AT AGE 65

1 % × (30 YEARS) × $ 12,000

plus

1.5 % × (30 YEARS) × ($20,000 - 12,000)

=

$3,600 + 3,600 = $ 7,200

Figure 9

Since our basic assumption is that all retirees live for fifteen years, we expect this $7,200 benefit to be payable for fifteen years.

There are many ways that we could pay the employee the $7,200 annual benefit. One method would be merely to send a check each year after the employee retires and not pre-fund (that is, no contributions are made prior to retirement). This method is called the "pay as you go" method and is depicted in Figure 10. Note that no contributions are made prior to age 65. After

age 65, $7,200 per year is paid for the assumed life expectancy of 15 years for a total payout of $108,000. The Social Security system uses a similar method, but this method is not legal for private pension plans.

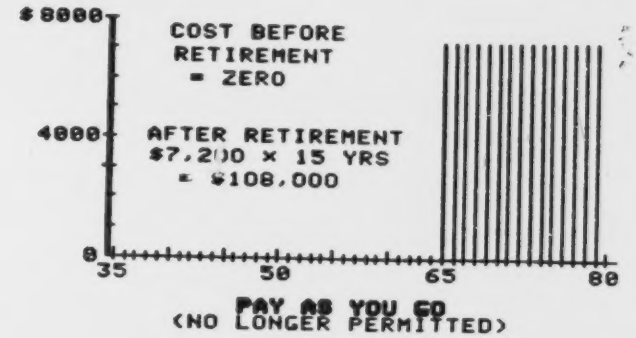


Figure 10

Figure 11 is another funding method referred to as "terminal funding," wherein a lump sum contribution is made to the plan at age 65 which provides the benefits to be paid thereafter. Under this method, nothing is contributed prior to retirement and at age 65 a lump sum contribution of $108,000 would be made to the plan. Since our assumption is that there are no interest earnings, the total contribution is equal to the amount of future benefits. Like the "pay as you go" method, this method is also not legal for private pension plans.

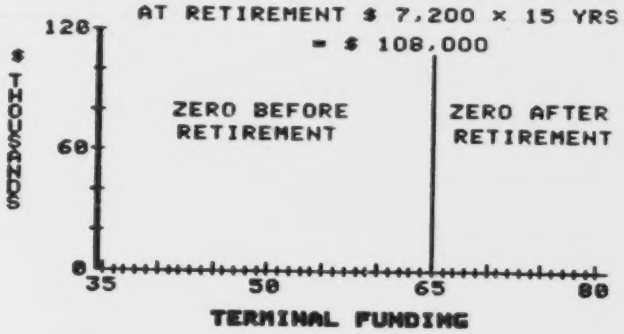


Figure 11

Defined benefit pension plans are designed with contributions made to the plan in advance, generally during the employee's working lifetime. To understand these advance funding methods, the definition of a few terms would be helpful. These terms are the present value of benefits (PVB), the present value of future normal costs (PVFNC), and the actuarial assets (AA). Figures 12, 13 and 14 provide definitions of these three terms:

PRESENT VALUE OF BENEFITS (PVB)

- The present value of all benefits expected to be paid in the future to the existing group of plan participants and/or their beneficiaries.
- PVB reflects benefits accrued in the past and benefits to be earned in the future.
- Anticipated salary increases are reflected in the calculation of PVB.

Figure 12

PRESENT VALUE OF FUTURE NORMAL COSTS (PVFNC)

- Normal cost is the annual pension cost assigned to a year by the actuarial cost method.
- The PVFNC is the present value of the normal cost payments expected to be made in the future on behalf of the existing participants.

Figure 13

ACTUARIAL ASSETS (AA)

The actuarial value of plan assets is the market value of the plan assets.

Figure 14

Under an advance funding method, contributions are made to the plan in advance, typically during the employee's working lifetime. In our example pension plan, we could pay for all the benefits prior to the date our theoretical employee retires, that is between the effective date of the plan (when our employee is age 40) and age 65. To do this, we need to contribute $4,320 per year for the 25-year period to accumulate the $108,000 which is the amount to be paid out after retirement. This method is called the "aggregate cost method" and the annual payment is called the "normal cost." Figure 15 depicts this method.

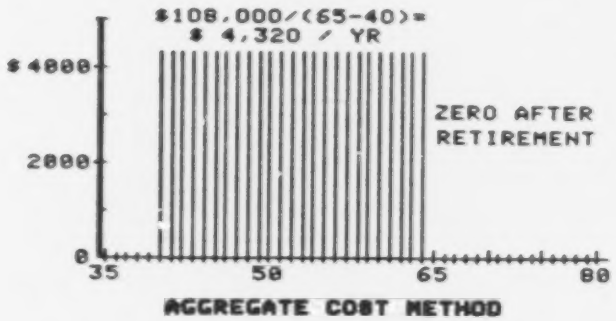


Figure 15

Under another actuarial funding method, the actuary determines the actual cost of the plan as above, but he assumes the contributions commence at the date that an employee is hired and continue until he retires. In our example, this would mean leveling the cost from age 35, the date our employee was hired, to age 65, the date he retires, thus over a total period of 30 years. The level annual cost, again called the normal cost, would be $3,600 per year as shown in Figure 16. This normal cost ($3,600 per year) accumulated for 30 years, would produce the required $108,000 at age 65. Under this method, the annual contribution is determined from age 35, even though the plan was not started until our employee was age 40.

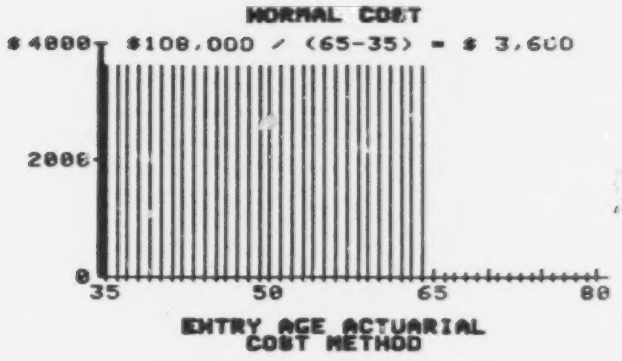


Figure 16

Therefore, there are five years for which no contributions were made. The total of these unpaid contributions (unpaid normal costs) is referred to by the actuary as the "unfunded actuarial liability." The unfunded actuarial liability, often referred to as UAL, represents the amount which would have been accumulated over and above the plan assets if:

1. The current plan had always been in effect;
2. The normal cost had been paid in the past;
3. Our actuarial assumptions had always been realized.

Over the years, the unfunded actuarial liability has also been referred to as the unfunded supplemental present value or the unfunded liability. For our example, the pension plan UAL is merely the sum of the contributions for the five years during which the $3,600 normal cost contribution has not been made. Figure 17 illustrates our unfunded actuarial liability.

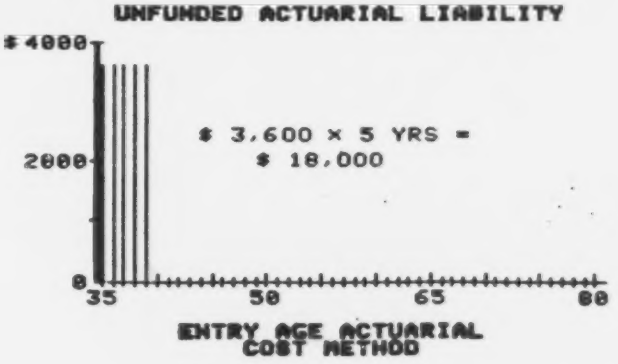


Figure 17

As part of the entry age actuarial cost method, one must determine how to pay off (amortize) the $18,000 unfunded actuarial liability in our example. The common method is to amortize the initial unfunded liability over some fixed time period, usually 25 or 30 years. Using a 30 year amortization period, the $18,000 would be paid off at the rate of $600 per year as shown in figure 18.

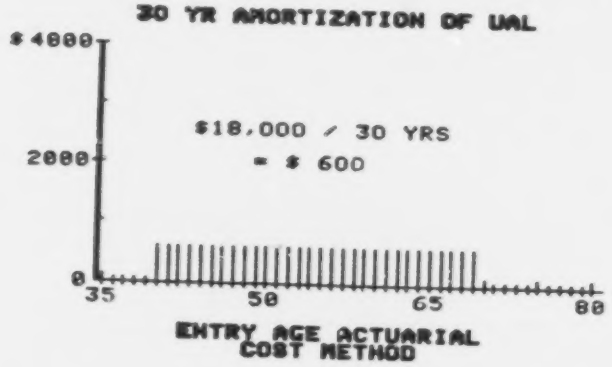


Figure 18

Finally, under the entry age cost method, the total annual contribution required, as shown in figure 19, is the normal cost ($3,600 for 25 years) plus the amortization of the unfunded actuarial liability ($600 for 30 years). The total amount of the contribution is $108,000. Don't be concerned by the fact that the payments for the unfunded actuarial liability are made after the employee retires. This is one advantage of covering large groups of employees and in essence contributions are being made for some of the employees after they retire.

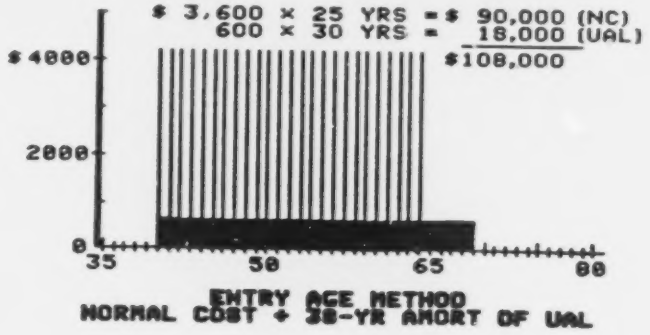


Figure 19

Referring back to our entry age cost method, we have identified four terms - the present value of future benefits, the present value of future normal costs, the actuarial assets, and the unfunded accrued liability. Figure 20 summarizes the basic funding equations for advance funding methods. Generally, these equations say that benefits will be provided by the present assets, future normal cost payments, and future payments toward the unfunded actuarial liability.

FUNDING EQUATIONS

- PVB = PVFNC + AA + UAL
  OR
- PVB - PVFNC - AA = UAL
  OR
- PVB - PVFNC = UAL + AA
  OR

REQUIREMENTS = RESOURCES

Figure 20

Although we'll not go into a detailed illustration of the effects of actual plan experience being different from actuarial assumptions, actuarial gain and loss is another item to consider. Using the basic funding equations described above, the actuary can evaluate the current year's actuarial gain/loss through the basic relationship:

Actuarial gain/loss = expected UAL - actual UAL.

An example of an actuarial gain would occur if, for instance, our single employee lived 16 years rather than the 15 years following retirement. Under that basis, the plan would have a $7,200 actuarial loss occurring when the employee attained age 80. Normally, actuarial gains and losses are amortized over 15 year periods, similar to the amortization of the UAL.

Under another actuarial funding method, unit credit, the actuary determines the annual cost based upon the value of the benefit earned during the current year. The normal cost under the unit credit method, as shown in Figure 21, is calculated from the benefit formula, but using only one year of service in the calculation. Since we have assumed no investment earnings in this example, the normal cost under the unit credit method is the same $3,600 as under the entry age method.

UNIT CREDIT METHOD

NORMAL COST =

THE PRESENT VALUE OF THE BENEFIT EARNED DURING THE CURRENT YEAR BASED ON PROJECTED SALARIES.

NC = [1% × 12000 + 1.5% × (20,000-12,000)] × (15 YEARS PAYOUT)

= $ 3,600

Figure 21

Under the unit credit method, the unfunded actuarial liability is determined as the present value of the accrued benefits less the value of the assets. Figure 22 shows the calculation of the UAL, which, again, it is the same as under the entry age cost method, since we have assumed no investment earnings.

UNIT CREDIT METHOD

UNFUNDED ACTUARIAL LIABILITY =

THE PRESENT VALUE OF THE ACRRUED BENEFITS LESS THE MARKET VALUE OF THE ASSETS.

UAL = [1% × 12,000 + 1.5% × (20,000-12000)] × (5 YRS SERVICE) × (15 YRS PAYOUT)

= $ 18,000

Figure 22

And finally, recognizing both the payment of the normal cost and the 30 year amortization of the unfunded actuarial liability, the total contribution is $4,200 per year for 25 years and $600 per year for the next 5 years. Again, these contributions are exactly the same as under the entry age method, due to the simplified assumptions which we have selected.

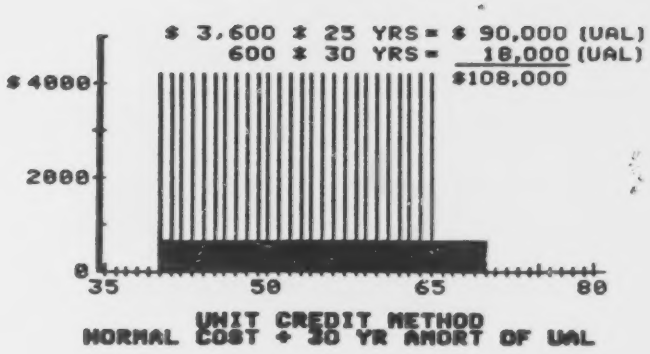


Figure 23

The inclusion of a salary and an investment return assumption further illustrates advance funding methods. Let's now assume that salaries increase at 6.5% per year, and that our investment return is 8%, thus a 1.5% differential between the investment earnings rate and the salary increase rate. Figure 24 shows the effects of the 8% salary increase, resulting in our hypothetical employee's salary increasing from $20,000 per year to $96,554 per year. Furthermore, since our plan bases benefits upon a five year average salary, $82,817 is the basis for the benefit determination.

HYPOTHETICAL EMPLOYEE

SALARY/WAGE	
AT 40	$ 20,000
AT 65	$ 96,554
SSBB AT 65	$ 45,761
HIGH 5 YR AVE SALARY AT 65	$ 82,817
CURRENT AGE	40
AGE AT HIRE	35
PAST SERVICE	5 YEARS
FUTURE SERVICE AT 65	25 YEARS
TOTAL SERVICE AT 65	30 YEARS

Figure 24

Figure 25 demonstrates the application of the same benefit formula to the new data for a hypothetical employee. Rather than an annual benefit of $7,200 per year under our no-salary increase assumption, the benefit here is $30,403 per year, thus an increase of over 4 times, due to the 6.5% annual salary increases.

BENEFIT AT AGE 65

1 % × (30 YEARS) × $ 45,761

plus

1.5 % × (30 YEARS) × ($82,817 - 45,761)

=

$13,728 + 16,675 = $ 30,403

Figure 25

Figure 26 shows the determination of present values of future benefits and normal costs for the hypothetical employee, recognizing the higher projected benefit and 8% investment earnings. Discounting the $30,403 benefit which commences at age 65 at an 8% interest rate produces a total present value of future benefits of $27,931. Under the entry age method, it is typical to determine normal cost as a level percentage of the employee's projected salary. Thus, projecting the employee's salary increases at 6.5% and discounting all future payroll for that employee at an 8% interest rate results in a total present value of future payroll of $360,168. Dividing the $27,931 present value of future benefits by the $360,168 present value of future payroll produces a normal cost rate of 7.755% of salary.

PRESENT VALUES AT AGE 35

PVB = $ 27,931

PV FUTURE PAYROLL = $360,168

NORMAL RATE = 7.755 %

THE NORMAL COST IS A LEVEL 7.755 %
OF COVERED PAYROLL

Figure 26

Since salary is assumed to increase 6.5% per year, and the normal cost is determined as a level percentage of salary, the normal cost increases 6.5% per year. In Figure 27, we see the normal cost at age 35 is $1,132 whereas the normal cost at age 64 is $7,031. The $7,031 normal cost is calculated as 7.755% times the $90,661 salary at age 64.

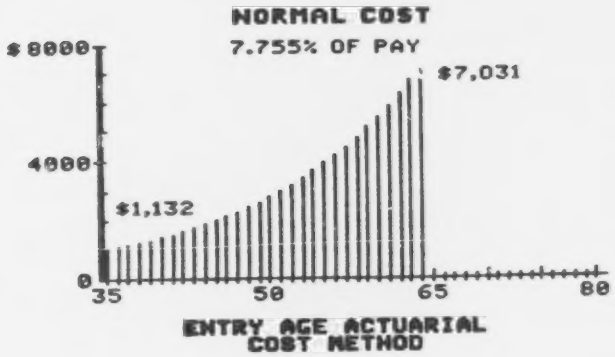


Figure 27

In Figure 28 we apply our basic funding equation to determine the unfunded actuarial liability at age 40 when the plan is initiated. The $41,040 present value of future benefits is calculated recognizing that the $30,403 benefit commences 25 years later (at age 65), and is payable for 15 years. The calculation discounts the $30,403 annual benefit payment at an interest rate of 8%. The $32,832 present value of future normal costs is calculated as 7.755% of the projected salaries earned at age 40 and beyond, again discounted at 8% interest.

PRESENT VALUES AT AGE 40

PVB	=	$41,040
-PVFNC	=	-32,832
-ASSETS	=	- 0
UAL	=	$ 8,208

OR, UAL = PVB - PVFNC - AA
= $41,040 - 32,832 - 0
= $8,208

Figure 28

In Figure 29, we see that amortizing the $8,208 unfunded actuarial liability over a 30 year period at an 8% interest assumption results in an annual cost of $675. This cost commences at age 40 and is payable through age 69.

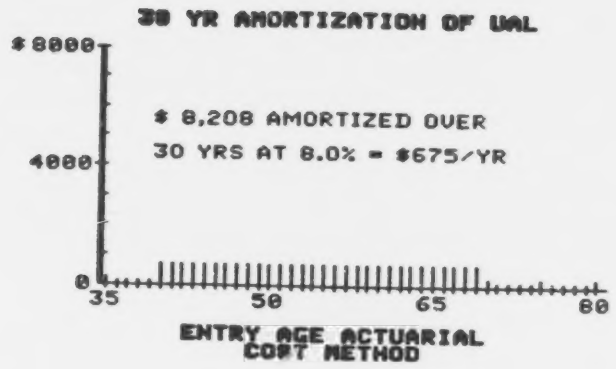


Figure 29

Now combining the normal cost and the 30 year amortization of the UAL, we see the total projected contribution for funding the pension plan. At age 40, the contribution is $2,226 which is 11.1% of the $20,000 salary earned at age 40. At age 64, the normal cost has increased to $7,706, but expressed as a percentage of pay it has reduced to 8.5%. The reason that the contribution has decreased as a percentage of pay relates to the fact that the 30 year amortization of the UAL is a level $675 per year, whereas the salary increases at 6.5% per year over this time period.

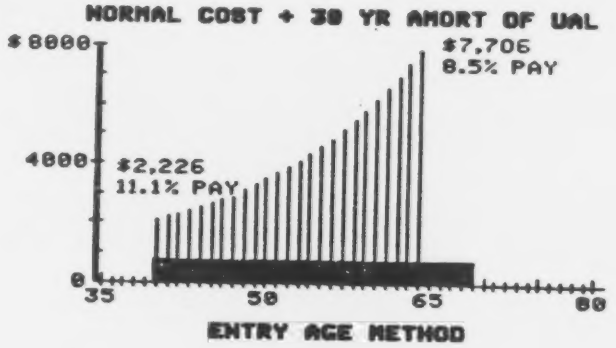


Figure 30

Figure 31 shows the calculation of the normal cost under the unit credit method using the same salary assumption. The value of the benefit earned at age 40 is $1,368. This calculation recognizes the projected benefit which is earned in the year the employee is 40, that the benefit commences at age 65 and is payable for 15 years. The value of the benefit earned at age 41 would be 8% higher, which reflects 1 year less of interest discount since that benefit is deferred only 24 years rather than 25 years for the benefit earned at age 40. The normal cost for later years continues at this 8% annual escalation.

UNIT CREDIT METHOD

NORMAL COST

THE PRESENT VALUE OF THE BENEFIT
EARNED DURING THE CURRENT YEAR
BASED ON PROJECTED SALARIES.

NC = [1% × $45,761 + 1.5% × (82,817 - 45,761)] ×
15 YR ANNUITY FACTOR @ 8.0%
DISCOUNTED TO AGE 40 @ 8.0%

= $ 1,368

Figure 31

The calculation of the unfunded actuarial liability parallels the determination of the normal cost at age 40. As shown in Figure 32, we first determine the benefit which is earned for each year of service, reflect that there have been 5 years of past service and then apply the appropriate discount factors. Since this is a new plan, and hence an asset fund has not developed, there are no assets to deduct from this unfunded actuarial liability. This $6,840 liability is 5 times the normal cost at age 40, which reflects the 5 years of past service which must be funded.

UNIT CREDIT METHOD

UNFUNDED ACTUARIAL LIABILITY

THE PRESENT VALUE OF THE ACRRUED BENEFITS
LESS THE MARKET VALUE OF THE ASSETS.

UAL = [1% × 45,761 + 1.5% × (82,817-45,761)]
× 5 YRS SERVICE × 15 YR ANNUITY FACTOR
DISCOUNTED TO 40 AT 8.0% LESS ASSETS

= $ 6,840 - 0 = $ 6,840

Figure 32

Figure 33 combines the annual contribution for the normal cost and the 30 year level contribution which amortizes the unfunded actuarial liability. This total contribution begins at $1,931, or 9.7% of pay and increases to $9,237 or 10.2% of pay.

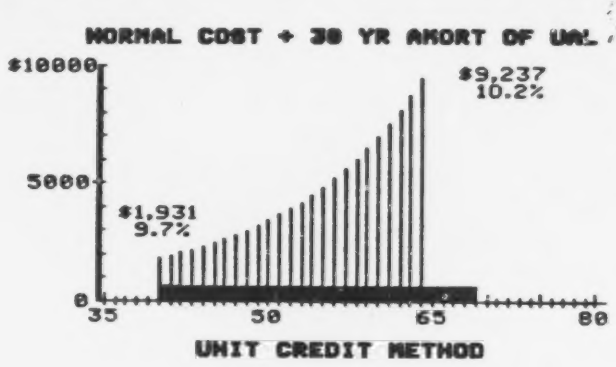


Figure 33

It is interesting to compare the relative annual cost under the entry age and the unit credit cost methods. As depicted in Figure 34, the annual contribution, expressed in dollars, is higher under the entry age method through approximately age 50, at which point there is a crossover and the unit credit method has the higher contribution. In practice this crossover could occur earlier or later than in our assumed plan.

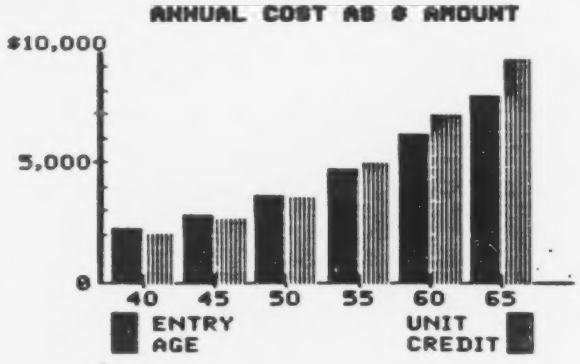


Figure 34

Typically, plan sponsors review the pension costs as a percentage of salary. In Figure 35, we see the comparison of the entry age and the unit credit methods with the annual cost expressed as a percentage of pay.

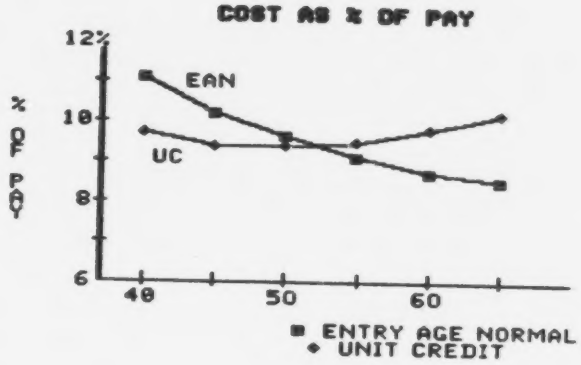


Figure 35

It is interesting to note that normal cost under the entry age method, expressed as a percentage of pay, is level. However, due to the level dollar amount of the 30 year amortization of the unfunded actuarial liability, that method has resulted in a decreasing cost as a percentage of pay. On the other hand, the unit credit method has normal costs which are an increasing percentage of pay. When we combine the level dollar amount for 30 year amortization of the unfunded actuarial liability, the overall result is a somewhat level annual cost as a percentage of pay.

INVESTMENT IMPLICATIONS
OF
NEW FEDERAL RETIREMENT PLAN

JON S. FOSSEL
SENIOR VICE PRESIDENT
ALLIANCE CAPITAL MANAGEMENT CORPORATION

MAY 30, 1984

FIRST, LET ME INTRODUCE MYSELF. I AM JON FOSSEL, SENIOR VICE PRESIDENT OF ALLIANCE CAPITAL MANAGEMENT, ONE OF THE WORLD'S LARGEST INVESTMENT MANAGEMENT ORGANIZATIONS. AT ALLIANCE, WE MANAGE NEARLY $20 BILLION OF OTHER PEOPLE'S MONEY, THE VAST MAJORITY OF WHICH, SOME $16 BILLION IS FOR CORPORATE PENSION PLANS AND FOR STATE AND LOCAL GOVERNMENT RETIREMENT SYSTEMS. OUR CLIENTS INCLUDE 25 OF FORTUNE MAGAZINE'S TOP 100 COMPANIES, RANGING FROM AMERICAN CAN TO UNION CARBIDE AND 50 GOVERNMENT RETIREMENT SYSTEMS FROM THE CALIFORNIA PUBLIC EMPLOYEE RETIREMENT SYSTEM TO THE STATE OF NEW YORK, AND HERE IN WASHINGTON, THE DISTRICT OF COLUMBIA TEACHERS, POLICE AND FIREFIGHTERS AND JUDGES RETIREMENT BOARD. OUR LIST OF CLIENTS AND THE ASSETS THEY ENTRUST TO OUR MANAGEMENT HAVE GROWN SUBSTANTIALLY OVER THE YEARS, IN LARGE PART BECAUSE OUR LONG TERM INVESTMENT RESULTS HAVE CONSISTENTLY MET OR EXCEEDED OUR CLIENTS EXPECTATIONS. FOR EXAMPLE, DURING THE PAST TEN YEARS, OUR EQUITY ACCOUNTS ACHIEVED A COMPOUND ANNUAL RETURN OF 13.4%, AND OUR BALANCED ACCOUNTS 12.1%. THESE RESULTS COMPARE VERY FAVORABLY WITH THE CPI WHICH INCREASED 8.2% PER YEAR DURING THE SAME PERIOD, U. S. TREASURY BILLS WHICH RETURNED 8.6% ANNUALLY, AND THE LARGE MAJORITY OF COMPETING INVESTMENT MANAGEMENT ORGANIZATIONS.

AS REGARDS MYSELF, MY 20 YEAR INVESTMENT CAREER PRETTY MUCH COVERS THE WATERFRONT FROM A SECURITY ANALYST AT TIAA-CREF, TO CHIEF INVESTMENT OFFICER AT AMERICAN GENERAL INSURANCE COMPANY'S MUTUAL FUND SUBSIDIARY. FROM MANAGING PENSION PORTFOLIOS SUCH AS THE UNITED NATIONS AND THE STATE OF KANSAS AT CITIBANK TO MY PRESENT POSITION AT ALLIANCE CAPITAL.

In addition to my investment career, I also spent two terms in the New York State Assembly where I served on the Ways & Means Committee and the Government Operations Committee, two years as its ranking member. Even though my political career was cut short in 1982 when I ran unsuccessfully for Congress in New York's 20th Congressional District, my intimate involvement with fiscal, budget and retirement issues in the state legislature has given me a far deeper understanding of the complexity of the retirement issues facing Congress today.

My assignment for the remaining 15 minutes or so is to share with you my thoughts on the investment implications of certain proposed changes in the Federal Retirement System required by the Social Security Act Amendments of 1983. I should point out that my views do not necessarily represent the views of my firm, but they do probably reflect a broad consensus of investment thinking today.

Let me say at the outset that I intend to focus my comments on Senator Steven's proposed Civil Service Pension Reform Act - not because I necessarily agree or disagree with its major elements, but rather because it is an excellent attempt to crystalize the major alternatives and their implications.

INTRODUCTION

THE NEED FOR CONGRESS TO ADDRESS ITSELF TO ALTERNATIVES TO THE CURRENT CIVIL SERVICE RETIREMENT SYSTEMS IS ABUNDANTLY CLEAR TO NEARLY EVERY INTERESTED PARTY. THE ACTIONS TAKEN BY CONGRESS PRIOR TO JANUARY IST 1986 COULD HAVE A VERY MAJOR IMPACT ON:

- CURRENT AND FUTURE PARTICIPANTS.
- CURRENT AND FUTURE BENEFICIARIES.
- THE ATTRACTIVENESS OF FEDERAL EMPLOYMENT FOR EXISTING AND NEW WORKERS.
- THE FEDERAL BUDGET AND TAXES.
- THE U. S. FINANCIAL MARKETS.
- GROWTH IN THE U. S. ECONOMY.

IN OTHER WORDS, SENATOR STEVEN'S PROPOSAL, OR WHATEVER ALTERNATIVE IS ADOPTED, WILL HAVE A VERY BROAD AND LONG-LASTING EFFECT ON EACH AND EVERY AMERICAN, NOT ONLY FOR TODAY, BUT FOR GENERATIONS TO COME.

INTERESTINGLY, UNLIKE SO MANY GOVERNMENT INITIATIVES, THE CIVIL SERVICE PENSION REFORM ACT HAS THE POTENTIAL TO POSITIVELY IMPACT EVERY INTERESTED PARTY WITHOUT A CONCOMITANT OFFSETTING NEGATIVE FOR ANYONE. IN OTHER WORDS, IF DONE RIGHT, THERE ARE NO LOSERS - ONLY WINNERS.

I WOULD LIKE TO LOOK AT THE INVESTMENT IMPLICATIONS FROM TWO QUITE DIFFERENT PERSPECTIVES. FIRST, WHAT ARE THE IMPLICATIONS OF EACH OF THE PROPOSED ACT'S MAJOR ELEMENTS.

AMONG THESE ARE:

- PRIVATE SECTOR INVESTMENTS, AND I WOULD ADD, EXPANDED PUBLIC SECTOR INVESTMENTS VS. THE PRESENT SOLE USE OF SPECIAL TREASURY ISSUES.

- DEFINED CONTRIBUTION AND THRIFT PLAN VS. THE CURRENT DEFINED BENEFIT PLAN.

- STRUCTURAL ISSUES SUCH AS THE ROLE OF THE PENSION BOARD OF TRUSTEES.

- POLITICAL AND POLICY ISSUES SUCH AS INVESTING FOR "SOCIAL" PURPOSES.

SECONDLY, I WOULD LIKE TO EXAMINE THE INVESTMENT IMPLICATIONS OF THE PROPOSED ACT IN TERMS OF ITS EFFECT ON THE MAJOR INTERESTED PARTIES.

AMONG THESE ARE:

- THE FEDERAL EMPLOYEE, ESPECIALLY THE NEW EMPLOYEE.

- THE FEDERAL GOVERNMENT AS THE EMPLOYER.

- THE ECONOMY AND THE FINANCIAL MARKETS.

Private Sector Investments

Let me go back now to the major elements of the Act and examine the investment implications of utilizing private sector investments instead of the current practice of buying and holding special Treasury securities.

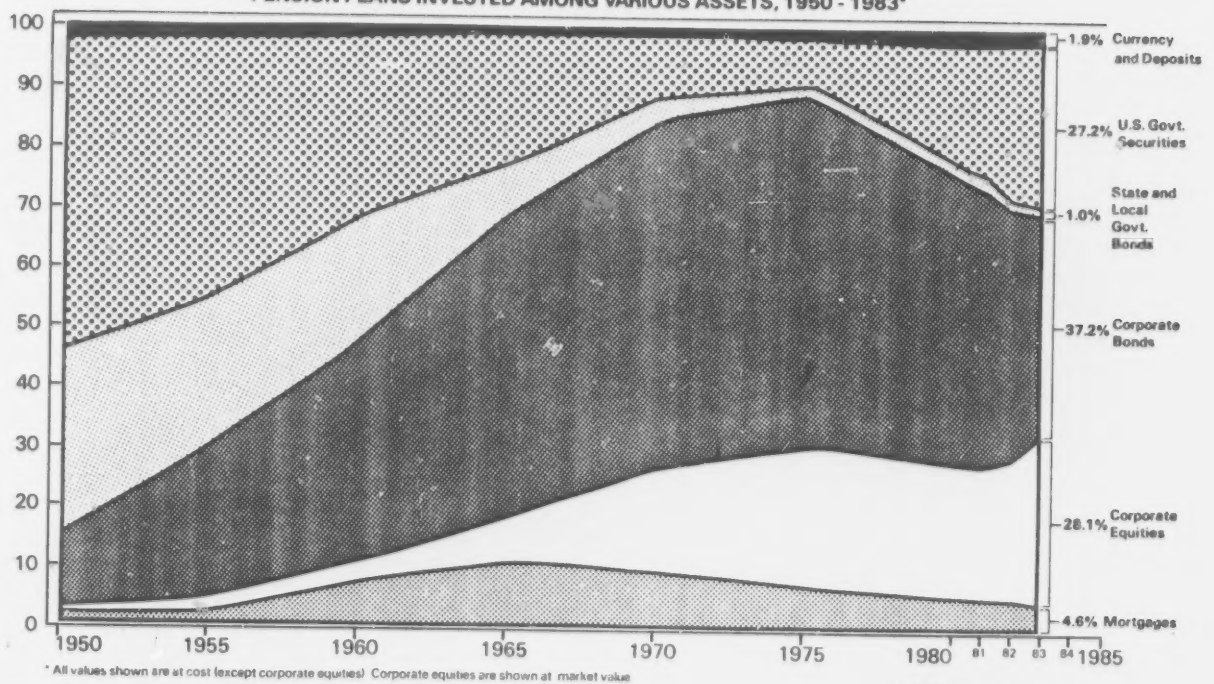
First, let me say that private vs. public investments is not the right issue. The right issue is: "what investment policy is best suited to providing appropriate retirement benefits to federal retirees at the least cost to the employer and current participants, at an acceptable level of risk".

In my opinion, the answer to that question is that most investments including: special issues, publicly traded Treasury issues, other federal agency issues, corporate bonds, common stocks, real estate, venture capital and probably other alternatives, are appropriate holdings for a retirement system as large and with as long-term a perspective as the Federal Government's. The proper mix of the various investments will depend on the changing mix of the workforce, actuarial assumptions, the nature of the plan or plans, the preference (if they have a choice) of the employees, changing economic and investment trends, and the prospective real returns and risk associated with each alternative.

The following chart (Exhibit I) shows how the investment mix of America's state and local government pension plans have changed over the past 33 years. Some of the change is secular in nature such as the decline in state and local government bonds but the majority is undoubtedly in response to changing market and investment return conditions.

EXHIBIT I

PERCENTAGE OF
STATE AND LOCAL GOVERNMENT
PENSION PLANS INVESTED AMONG VARIOUS ASSETS, 1950 - 1983*



* All values shown are at cost (except corporate equities) Corporate equities are shown at market value

Source Federal Reserve Board Flow of Funds Accounts

Alliance
Capital Management Corporation

A SIMILAR CHART FOR CORPORATE PENSION PLANS WOULD SHOW A VERY DIFFERENT ASSET MIX BUT SIMILAR LONG-TERM TRENDS. AS THE COST OF PROVIDING APPROPRIATE RETIREMENT BENEFITS HAS ESCALATED, PLAN SPONSORS AND THEIR INVESTMENT MANAGERS HAVE BECOME MORE SENSITIVE TO ENHANCING RETURNS WHILE AT THE SAME TIME MAINTAINING RISK AT ACCEPTABLE LEVELS. I SAY ACCEPTABLE LEVELS INSTEAD OF SAYING "MINIMIZING RISK" BECAUSE BY DEFINITION A RETIREMENT SYSTEM HAS A LONG-TERM INVESTMENT PERSPECTIVE. EMPLOYEES AND/OR EMPLOYERS MAKE CONTRIBUTIONS OVER A VERY LONG NUMBER OF YEARS AND BENEFICIARIES USUALLY RECEIVE BENEFITS FOR MANY YEARS. THEREFORE, IN ORDER TO IMPROVE BENEFITS AND/OR REDUCE COSTS THROUGH ATTAINMENT OF HIGHER RETURNS THE ASSUMPTION OF SOME SHORTER TERM VOLATILITY (OR RISK) IS PERFECTLY APPROPRIATE (AND PRUDENT).

THE FOLLOWING TABLE (EXHIBIT II) ILLUSTRATES THE COMPOUND ANNUAL RETURN ACHIEVED FROM THE FOUR MAJOR CLASSES OF INVESTMENT ASSETS OVER THE PAST 57 YEARS.

EXHIBIT II

STOCK, BONDS, RISK FREE ASSETS, & INFLATION
COMPOUND GROWTH RATES, 1926-1983

	NOMINAL	REAL
COMMON STOCKS (S&P 500)	9.6%	6.6%
LONG-TERM CORPORATE BONDS	4.2%	1.2%
LONG-TERM GOVERNMENT BONDS	3.5%	0.5%
TREASURY BILLS	3.2%	0.2%
INFLATION	3.0%	—

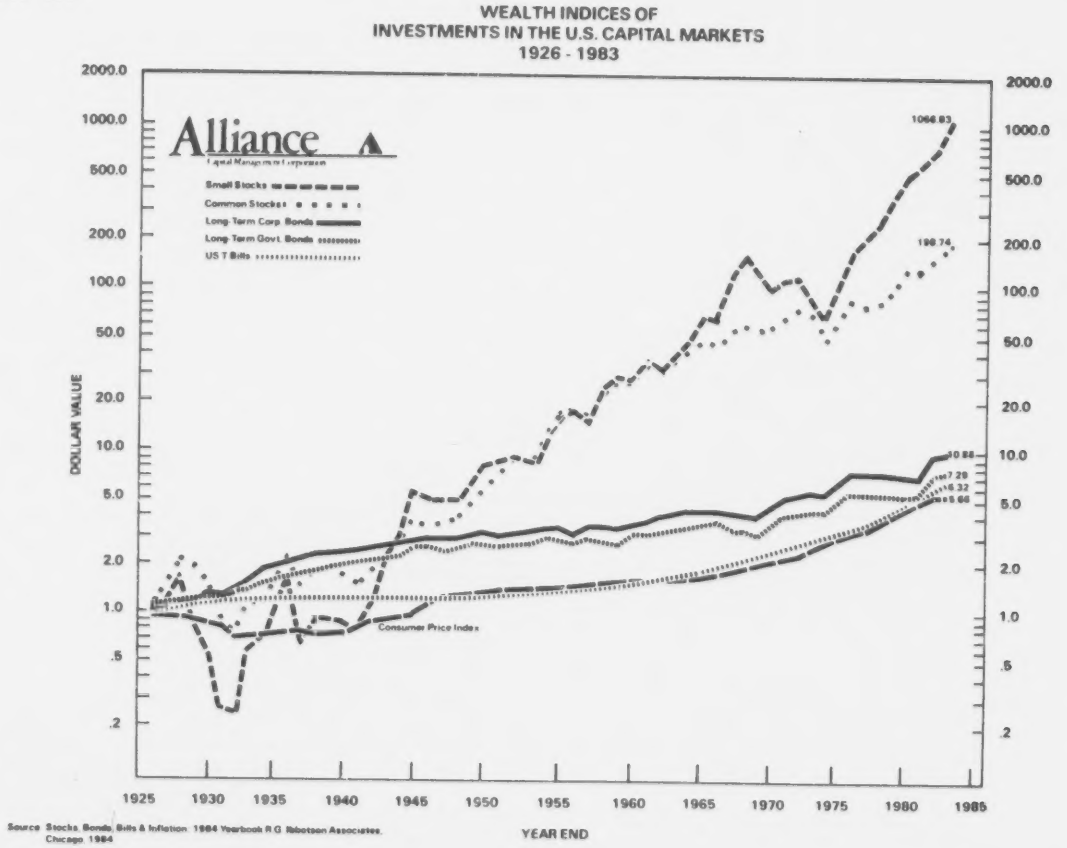
Source: University of Chicago

Alliance

THE RISKIEST (OR MOST VOLATILE) ASSET, COMMON STOCKS, ACHIEVED THE HIGHEST RETURN BY THREE TIMES AS MUCH PER YEAR AS U. S. TREASURY BILLS, AN OSTENSIBLY RISK-FREE INVESTMENT, WHICH IS ALSO A VIRTUALLY RETURN-FREE INVESTMENT, IN REAL TERMS.

THE NEXT CHART (EXHIBIT III) SHOWS DRAMATICALLY THE LONG TERM IMPACT OF COMPOUNDING A GIVEN DOLLAR OF INVESTMENT AT A HIGH RATE.

EXHIBIT III


WEALTH INDICES OF
INVESTMENTS IN THE U.S. CAPITAL MARKETS
1926 - 1983
Alliance
Small Stocks
Common Stocks
Long-Term Corp. Bonds
Long-Term Govt. Bonds
US T Bills
Consumer Price Index
1066.83
198.74
20.86
17.29
16.32
5.66
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
.5
.2
DOLLAR VALUE
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
YEAR END
Source: Stocks, Bonds, Bills & Inflation 1984 Yearbook R.G. Ibbotson Associates, Chicago, 1984

THE CHART SHOWS THAT ONE DOLLAR INVESTED IN COMMON STOCKS AT THE END OF 1925 WOULD HAVE BEEN WORTH NEARLY $200 BY THE END OF 1983 WHEREAS THAT SAME DOLLAR INVESTED IN LONG TERM CORPORATE BONDS WOULD BE WORTH $11, SEVEN DOLLARS IF IN LONG TERM GOVERNMENT BONDS, SIX DOLLARS IF IN TREASURY BILLS. OBVIOUSLY, THE IMPACT OF HIGHER RETURNS HAS SIGNIFICANT POSITIVE IMPLICATIONS FOR EMPLOYEE AND EMPLOYER ALIKE.

THE GRAPH, HOWEVER, SHOWS SOMETHING ELSE AS WELL, AND THAT IS HOW MUCH MORE VOLATILE THE SHORTER TERM RETURN FROM STOCKS HAS BEEN WHEN COMPARED TO LESS RISKY INVESTMENT ALTERNATIVES. OVER THIS PERIOD, THE ANNUAL RETURN FOR STOCKS RANGED FROM +54% IN 1933 TO -43% IN 1931. WHEREAS LONG TERM GOVERNMENT BOND RETURNS RANGED FROM +30% IN 1932 TO -16% IN 1946.

ALL CLASSES OF ASSETS EXCEPT SHORT-TERM TREASURY BILLS HAD AT LEAST ONE TEN YEAR PERIOD WHEN <u>BOTH</u> NOMINAL AND REAL RETURNS WERE NEGATIVE. HOWEVER, A DIFFERENT PICTURE EMERGES WHEN TWENTY YEAR HOLDING PERIODS ARE EXAMINED. AS THE FOLLOWING TABLE (EXHIBIT IV) SHOWS, EVERY CLASS OF ASSET HAD A POSITIVE NOMINAL RETURN FOR ANY TWENTY YEAR PERIOD.

EXHIBIT IV

COMPOUND ANNUAL RATES OF RETURN OVER BEST/WORST 20 YEAR PERIODS (1926-1983)

	Best 20 Years		Worst 20 Years	
	Nominal	Real	Nominal	Real
Small Stocks	21.1% (1942-61)	17.2% (1942-61)	5.7% (1929-48)	4.0% (1929-48)
Common Stocks	16.9% (1942-61)	13.0% (1942-61)	3.1% (1929-48)	0.8% (1962-81)
Long Term Corporate Bonds	5.5% (1926-45)	5.4% (1926-45)	1.3% (1950-69)	-2.7% (1962-81)
Long Term Government Bonds	4.7% (1926-45)	4.6% (1926-45)	0.7% (1950-69)	-3.1% (1962-81)
Treasury Bills	6.1% (1962-81)	1.0% (1952-71)	0.4% (1931-50)	-3.1% (1933-52)
Inflation	5.9% (1962-81)		0.1% (1926-45)	

SOURCE: *Stocks, Bonds, Bills and Inflation: 1984 Yearbook*, R.G. Ibbotson Associates, Chicago, 1984.

Alliance

THIS TABLE IS DRAMATIC EVIDENCE OF THE HIGHER LONG-TERM RETURNS THAT IS LIKELY TO BE FOUND IN MORE RISKY (THAT IS MORE VOLATILE ASSETS) AND ALSO SHOWS THAT OVER LONGER TIME PERIODS THE RISK OF NEGATIVE RETURNS FROM COMMON STOCKS, THE MOST VOLATILE ASSETS, HAS BEEN WELL WITHIN ACCEPTABLE AND PRUDENT LIMITS.

WHILE THE PRECEDING ANALYSIS IS HISTORICAL, IT MIGHT BE INSTRUCTIVE TO TAKE A LOOK INTO THE FUTURE THROUGH THE EYES OF 126 OF THE COUNTRY'S LARGEST STATE AND LOCAL GOVERNMENT PENSION FUND OFFICIALS.

THE TABLE (EXHIBIT V) SHOWS THAT FOR THE NEXT 5-10 YEARS, THESE FUNDS EXPECT THE HISTORICAL RELATIONSHIP BETWEEN RISK AND RETURN TO BE MAINTAINED, WITH THE MORE VOLATILE INVESTMENTS, EMERGING GROWTH STOCKS, TO OFFER FAR HIGHER RETURNS THAN LOW RISK INVESTMENTS SUCH AS TREASURY BILLS. I MIGHT ADD A PERSONAL OPINION HERE, WHICH IS THAT I BELIEVE THE TOTAL RETURN REALIZED BY LONG-TERM HIGH YIELDING, HIGH QUALITY BONDS WILL EXCEED RETURNS FROM COMMON STOCKS OVER THE NEXT SEVERAL YEARS ON A RISK ADJUSTED BASIS. THAT IS TO SAY, AS AN ACTIVE MANAGER OR A BOARD MEMBER OF THE NEW CIVIL SERVICE RETIREMENT SYSTEM, I WOULD HAVE A VERY LARGE PORTION OF THE FUND INVESTED IN BONDS TODAY.

EXHIBIT V

RATE OF RETURN EXPECTATIONS BY STATE AND LOCAL PENSION FUND OFFICIALS

Base: 126

	90-Day Treasury Bills	S&P 500 Stock Average	Established Growth Stocks	Emerging Growth Stocks	Buy-and-Hold Corporate Bonds	Actively Managed Corporate Bonds	Equity Real Estate	Real Estate Mortgages
Mean	8.9%	12.5%	14.3%	15.9%	10.0%	11.4%	12.0%	10.7%
Median	8.8%	11.5%	13.5%	15.5%	9.8%	11.5%	10.5%	11.5%

Source: Greenwich Research Associates, *Public Pension Funds 1984 Market Dynamics Report.*

Alliance
Capital Management Corporation

THE SIGNIFICANCE OF THE HISTORICAL AND PROSPECTIVE RETURNS REALIZED BY VARIOUS INVESTMENT ALTERNATIVES ARE THE FOLLOWING:

I. COMMON STOCKS AND CORPORATE BONDS HAVE IN THE PAST, AND MAY VERY LIKELY IN THE FUTURE, OFFER HIGHER LONG TERM RETURNS THAN TREASURY BILLS OR LONG-TERM GOVERNMENT BONDS.

2. THE SHORT-TERM VOLATILITY OF STOCKS IS SIGNIFICANTLY GREATER THAN BONDS OF ALL TYPES.

3. ALL INVESTMENT ALTERNATIVES HAVE ACHIEVED POSITIVE NOMINAL RETURNS OVER ANY TWENTY-YEAR PERIOD.

4. THE VAST MAJORITY OF TWENTY-YEAR PERIODS SHOWED POSITIVE NOMINAL AND REAL RETURNS FOR ALL INVESTMENT ALTERNATIVES.

SINCE, AS MENTIONED EARLIER, A LONG-TERM TIME HORIZON IS APPROPRIATE FOR THE FEDERAL RETIREMENT SYSTEM, IT IS MY STRONGLY HELD OPINION THAT A PROPERLY DIVERSIFIED INVESTMENT PORTFOLIO UTILIZING A FULL ARRAY OF PRUDENT INVESTMENT ALTERNATIVES WILL ACHIEVE MUCH HIGHER INVESTMENT RETURNS THAN THE APPROACH CURRENTLY FOLLOWED BY CSRS. ADDITIONALLY, THE HIGHER RETURN CAN AND SHOULD BE ATTAINED WITH MINIMAL INCREASE IN LONG-TERM VOLATILITY. THE ABOVE CONCLUSIONS ASSUME A PASSIVE INVESTMENT APPROACH. OBVIOUSLY ACTIVE MANAGEMENT OF SEGMENTS OF THE RETIREMENT SYSTEM'S ASSETS HAS THE POTENTIAL TO ENHANCE OVERALL RETURNS EVEN FURTHER.

AN ACTIVELY MANAGED INVESTMENT APPROACH UTILIZING ALL INVESTMENT ALTERNATIVES, FROM TREASURY BILLS AND BONDS, TO GOVERNMENT AGENCY AND CORPORATE BONDS, TO MORTGAGES AND REAL ESTATE TO COMMON STOCKS IS THE APPROACH THAT BEST ANSWERS THE QUESTION I POSED EARLIER WHICH WAS "WHAT INVESTMENT POLICY IS BEST SUITED TO PROVIDING APPROPRIATE RETIREMENT BENEFITS TO FEDERAL RETIREES AT THE LEAST COST TO THEIR EMPLOYER AND CURRENT PARTICIPANTS, AT AN ACCEPTABLE LEVEL OF RISK?"

THIS IS WHY MOST MAJOR CORPORATE AND PUBLIC SECTOR PENSION PLANS HAVE MOVED TO SUCH AN APPROACH OVER THE PAST TWENTY YEARS OR SO.

DEFINED CONTRIBUTION AND THRIFT PLAN

THE SECOND MAJOR ELEMENT OF THE PROPOSED ACT THAT HAS INVESTMENT IMPLICATIONS IS THE CREATION OF A DEFINED CONTRIBUTION PLAN IN COMBINATION WITH A THRIFT PLAN INSTEAD OF THE CURRENT CSRS DEFINED BENEFIT PLAN.

THE IMPORTANT INVESTMENT CONSIDERATION IS THE RECOGNITION THAT IN A DEFINED BENEFIT PLAN THE ASSETS OR LIABILITIES ARE, IN ESSENCE, OWNED BY THE EMPLOYER (OR IN THE CASE OF GOVERNMENT SYSTEMS, THE TAXPAYERS) WHO THEREFORE WILL REALIZE THE BENEFITS OF SUPERIOR INVESTMENT RETURNS AND ALSO BEARS THE COST OF INADEQUATE RESULTS AND/OR INSUFFICIENT CONTRIBUTIONS. IN DEFINED CONTRIBUTION AND THRIFT PLANS, ON THE OTHER HAND, THE EMPLOYEE OWNS THE ASSETS AND ASSUMES THE RISK AND REWARDS OF

THE INVESTMENT RETURNS REALIZED. THE MAJOR INVESTMENT IMPLICATION OF A MOVE TO DEFINED CONTRIBUTION IS THAT USUALLY EMPLOYEES ARE OFFERED A CHOICE OF INVESTMENT ALTERNATIVES AND MAY TAILOR THEIR INVESTMENT MIX TO SUIT THEIR PERSONAL FINANCIAL SITUATION AND RISK TOLERANCE. A YOUNGER EMPLOYEE, WITH HIGH POTENTIAL FOR CAREER ADVANCEMENT, MAY WISH TO HAVE A HIGHER PORTION OF HIS ASSETS INVESTED IN COMMON STOCKS OR REAL ESTATE, WHEREAS, ANOTHER EMPLOYEE WHO IS CLOSER TO RETIREMENT, MAY WISH TO HAVE HIS PLAN ASSETS INVESTED IN MORE CONSERVATIVE GOVERNMENT BONDS OR TREASURY BILLS. EITHER INDIVIDUAL COULD HAVE THE FREEDOM TO CHANGE THE MIX OF ASSETS IN HIS PLAN AS PERSONAL FINANCIAL SITUATIONS CHANGE.

SINCE THE EMPLOYEE AND RETIREE HAS THIS FLEXIBILITY, THERE WILL OBVIOUSLY BE A NEED TO PROVIDE A VARIETY OF INVESTMENT CHOICES. THEREFORE, THE SYSTEM MUST ACQUIRE, EITHER INTERNALLY OR EXTERNALLY, THE NECESSARY EXPERTISE TO MANAGE IN A PROFESSIONAL AND PRUDENT MANNER, AN APPROPRIATE RANGE OF INVESTMENT ALTERNATIVES.

ONCE THE MAJOR ISSUES OF INVESTMENT APPROACH AND PLAN STRUCTURE ARE RESOLVED, SOME OF THE TOUGHEST HURDLES STILL REMAIN. THESE ARE WHAT I WILL CALL THE STRUCTURAL, POLITICAL AND POLICY ISSUES.

Structural Issues

Taking the structural issues first, it is clearly in the best interest of all concerned to set up the Pension Fund's Board of Trustees in such a way as to provide the most professional understanding of pension and investment issues. There is ample precedent for the establishment of such a board to be found in many of the State systems in this country as well as a number of multi-national employers such as the United Nations.

Generally speaking, the Board should consist of employee, employer and political representatives and assumes broad policy-making and oversight responsibilities including:

- Investment policy.
- Asset Allocation.
- Legal and contractural oversight.
- Hiring the Executive Director.

I PERSONALLY FEEL THAT, CONTRARY TO THE PROVISIONS OF THE PROPOSED ACT, THE EXECUTIVE DIRECTOR SHOULD BE HIRED BY THE BOARD AND THAT EMPLOYEES, BOTH CURRENT AND RETIRED, SHOULD HAVE BROADER REPRESENTATION ON THE BOARD. ONE OF THE MOST IMPORTANT STRUCTURAL ISSUES TO BE FACED IS WHETHER THE FUND'S ASSETS SHOULD BE MANAGED BY A PROFESSIONAL, INTERNAL STAFF OR BY EXTERNAL INVESTMENT MANAGERS. THERE ARE PRO'S AND CON'S IN EACH APPROACH AND AS YOU CAN SEE IN THE FOLLOWING TABLE (EXHIBIT VI) PUBLIC FUNDS IN THE U. S. USE BOTH INTERNAL AND EXTERNAL MANAGEMENT ON BOTH AN ADVISORY AND DISCRETIONARY BASIS. MANY MAJOR FUNDS CONTRACT OUT MANAGEMENT OF CERTAIN ASSETS ESPECIALLY THE MORE COMPLEX INVESTMENTS SUCH AS STOCKS AND REAL ESTATE, WHILE RETAINING INTERNAL MANAGEMENT FOR SHORT TERM INVESTMENTS AND PERMANENT LONG TERM INVESTMENTS.

EXHIBIT VI

HOW MANAGEMENT OF PUBLIC FUNDS VARIES WITH FUND CHARACTERISTICS

	Base	Internal Management	Advisory Management	Discretionary Management
Type of Fund				
State funds	(70)	70%	49%	46%
Municipal funds	(170)	42%	32%	66%
Large municipal	(36)	47%	56%	61%
Plan Assets				
Over $500 million	(68)	69%	50%	49%
Type of Management				
Internal	(32)	100%	0%	0%
Advisory	(26)	0%	100%	0%
Discretionary	(79)	0%	0%	100%
Number of Employees				
Over 20,000	(63)	65%	44%	52%

SOURCE: Greenwich Research Associates, *Public Pension Funds 1984 Market Dynamics Report.*

Alliance

EVEN THOUGH I HAVE A BIAS TOWARD PROFESSIONAL, EXTERNAL MANAGEMENT BECAUSE OF THE CRITICAL IMPORTANCE OF ATTRACTING AND RETAINING AN OUTSTANDING INVESTMENT STAFF, I BELIEVE THAT A FUND AS LARGE AS THE FEDERAL GOVERNMENT RETIREMENT SYSTEM COULD VERY WELL FIND IT COST EFFECTIVE TO PERFORM CERTAIN INVESTMENT FUNCTIONS ITSELF AND IN ANY EVENT SHOULD HAVE A HIGHLY COMPETENT INVESTMENT PROFESSIONAL AS EXECUTIVE DIRECTOR.

POLITICAL AND POLICY ISSUES

IN ORDER FOR THE FUND TO BE BEST ABLE TO ACHIEVE ITS LONG RANGE OBJECTIVES FOR ITS PARTICIPANTS, IT IS PARAMOUNT THAT THE EXECUTIVE DIRECTOR, THE PROFESSIONAL STAFF AND EXTERNAL MANAGERS BE AS FAR REMOVED FROM POLITICAL INFLUENCE AND INTERFERENCE AS POSSIBLE. THERE ARE TOO MANY EXAMPLES, EVEN IN THE VERY RECENT PAST WHERE BOARD MEMBERS OR OTHER OUTSIDE GROUPS INTRUDED INTO THE INVESTMENT PROCESS OF PUBLIC FUNDS WITH QUITE NEGATIVE RESULTS.

THIS IS NOT TO SAY THAT SUCH POLICY/POLITICAL ISSUES SUCH AS "SOCIAL INVESTING", I.E. HOUSING STIMULUS, URBAN REVITALIZATION, SOUTH AFRICA ETC. ARE NOT LEGITIMATE CONSIDERATIONS FOR THE BOARD. THEY ARE. HOWEVER, IT MUST BE RECOGNIZED THAT VIRTUALLY EVERY INVESTMENT POLICY DECISION HAS THE POTENTIAL TO IMPACT THE RETURN AND/OR RISK REALIZED ON THE FUND'S INVESTMENTS.

In no event should the Board members or anyone else other than those specifically vested with the proper authority have the ability to make investment decisions. The proposed Act has addressed this issue quite properly.

Another major policy concern is the possibility that the Fund might control the market or certain sectors of the market.

In my opinion, these fears are wholly unfounded. In the first place, the proposed Act provides for a very gradual phase-in of the private sector investments. Secondly, the current and prospective size and liquidity of the U. S. financial markets make it highly unlikely that any responsibly managed fund, even one of this size could have undue influence on the market. Thirdly, it is highly likely that the Fund's assets will be widely diversified among government and corporate bonds, real estate, mortgages and a large number of common stocks, not concentrated in any one segment.

It is however logical to conclude that on a supply/demand basis the yield spread between treasury securities and private sector securities could narrow slightly as the Federal Government's retirement system invested a growing share of assets in private sector investments. The overall level of interest rates would however, contrary to the conclusion of some observers, remain unchanged.

ON THE SURFACE, IT APPEARS THAT THE MULTIPLICITY OF STRUCTURAL, POLITICAL AND POLICY ISSUES AFFECTING THE FUND'S INVESTMENT APPROACH ARE SO COMPLEX AND CONTROVERSIAL THAT IT WOULD BE EASY TO CONCLUDE THAT ITS JUST NOT WORTH UNDERTAKING MAJOR CHANGE. WE MUST REMEMBER, HOWEVER, THAT THERE IS A RESPONSIBILITY TO CURRENT AND FUTURE RETIREES THAT IS PARAMOUNT. MOST OF AMERICA'S MAJOR CORPORATIONS, OUR 50 STATES, MOST OTHER MAJOR POLITICAL SUBDIVISIONS AND OUR LARGEST LABOR UNIONS HAVE ALREADY CHOSEN A COURSE THAT UTILIZES MODERN INVESTMENT MANAGEMENT APPROACHES.

THEY HAVE DONE SO BECAUSE IT IS IN THE LONG-TERM BEST INTEREST OF THEIR CURRENT, FUTURE AND RETIRED EMPLOYEES.

THE PROPOSAL'S IMPACT

AS I STATED AT THE OUTSET, ANY NEW FEDERAL PENSION PLAN WILL HAVE A SIGNIFICANT IMPACT ON A BROAD CROSS SECTION OF AMERICA. THE ENTITIES MOST AFFECTED WILL BE FEDERAL WORKERS, THEIR EMPLOYER, AND THE NATION'S ECONOMY AND FINANCIAL MARKETS.

SENATOR STEVEN'S PROPOSED CIVIL SERVICE PENSION REFORM ACT HAS THE POTENTIAL TO YIELD A MAJOR POSITIVE BENEFIT ON ALL FRONTS.

The Federal Employee

For the employee it provides the opportunity to tailor his retirement program to his particular needs, and to adjust his investment mix over time to reflect changing personal financial circumstances. Additionally, the contributions to each employee's individual account will be owned by the employee, will be portable in the event the employee changes jobs and will therefore be insulated from political or budgetary undermining.

While it is true that the investment risk as well as the reward of the investment results are borne by the employee in a defined contribution plan, it is also true that such a plan can provide a low risk investment alternative. Furthermore, as discussed earlier, it is highly likely that the long-term returns from a professionally managed, well diversified fund will exceed the returns from <u>an</u> unmanaged fund investing only in special Treasury issues. This is not only because returns from other investments will, in all likelihood continue to be higher over long time periods, but equally important, because asset mix can be altered to reflect economic, market, inflationary and interest expectations.

THE FEDERAL EMPLOYER

THE IMPACT ON THE FEDERAL GOVERNMENT IS LESS CLEAR BUT NONETHELESS, QUITE POSITIVE IN THE LONG RUN. IN THE FIRST PLACE, AS THE FUND'S ASSETS EARN HIGHER RETURNS THE COST OF PROVIDING THE SAME, OR EVEN HIGHER BENEFITS ARE REDUCED. ADDITIONALLY, THE PLAN WILL HAVE A KNOWN AND PREDICTABLE COST.

THE VERY SHORT-TERM BUDGET IMPACT MAY WELL BE SOMEWHAT NEGATIVE ALTHOUGH THE PRESUMPTION THAT BY BORROWING THE AMOUNT NECESSARY TO FUND THE NEW PLAN WOULD MERELY RAISE TREASURY YIELDS TO THE LEVELS PREVAILING ON PRIVATE INVESTMENTS IS TOTALLY UNSUPPORTABLE IN THE SHORT-TERM AND GIVES NO CONSIDERATION TO THE MULTIPLIER EFFECT ON THE ECONOMY AND TAX COLLECTIONS AS THE CONSEQUENCE OF ENHANCING CAPITAL FORMATION.

IN MY OPINION, THE NET RESULT FOR THE FEDERAL GOVERNMENT OVER THE LONG RUN WILL BE:

- LOWER COSTS
- BETTER BUDGETING
- HAPPIER EMPLOYEES
- HIGHER REVENUES

THAT'S AN UNBEATABLE COMBINATION!

The Economy & Financial Markets

The implications of steps taken to stimulate capital formation in the U. S. have well-known long range consequences that are generally positive. Obviously, moving from an underfunded to a fully funded federal pension plan investing in the private sector would require a large and growing flow of funds impacting savings and capital formation. To the extent that these dollars earn a higher return which is then reinvested, are matched by further individual contributions from current consumption, and increase federal tax receipts by stimulating economic growth, then the financial markets and the economy would be benefited.

WHO SHOULD PAY FOR PENSIONS?

HOW MUCH?

A Presentation for the United States Senate
Committee on Governmental Affairs
Subcommittee on Civil Service, Post Office and General Services

Policy Forum
on
Pension Funding, Investment and Administrative Issues
May 30, 1984

Prepared by: Kenneth K. Keene, Senior Vice President, Johnson & Higgins

"WHO SHOULD PAY FOR PENSIONS? HOW MUCH?"

Many questions must be studied in the design, implementation and operation of a new Civil Service Retirement System:

- Should the new plan be a defined benefit plan, a defined contribution plan or a combination of the two types?
- Should the new plan offer federal employees the kinds of retirement vehicles available to participants in private and other public plans, such as salary reduction plans or variable annuity options?
- How large should the benefits be on top of Social Security? How large to produce adequate yet not excessive benefits?
- What protection should be provided for terminating employees and survivors of participants who die?
- How should benefits for retirees be protected against inflation?
- What benefits should be provided for early retirement? For postponed retirement?
- Should benefits be integrated with Social Security?
- How should funding be handled?
- How should pension assets be invested? By whom?

The central answer to all of these questions requires proper balancing of benefits and costs.

ROLE OF EMPLOYEE CONTRIBUTIONS

For workers not in federal employment, responsibility for benefits over and above a basic Social Security level is carried by employers and employees. Similarly, the costs of adequate pension benefits for new federal employees, over and above Social Security, should be the responsibility of the employees and the governmental units for which they work. Employees must be encouraged to share in a significant way in desired accumulations toward retirement. Employee contributions allow a pension system to be equitable for all while still providing a degree of choice to tailor pre- and post-retirement income to suit individual needs.

NECESSITY FOR PRE-FUNDING

Minimum funding -- whether by the same standards required of private plans under the Employee Retirement Income Security Act of 1974 (ERISA), or by standards modified to reflect the unique position of the federal government as an employer -- should be applied to the federal agencies for their share of the retirement benefits. One of the gravest dangers in designing a pension system is that, with the bulk of costs and almost all promised benefits due in the distant future, any inbalance between costs and benefits may remain buried

for years. A false sense of stability can build up over years when the cash flow of the system is heavily positive, even leading to benefit increases that may not be supportable over the long term. When the costs do catch up -- and they ultimately must since they cannot be deferred indefinitely -- it will prove virtually impossible to amend either benefits or contributions to then strike the balance which should have been orchestrated at the outset. Particularly in these days when the Administration, the Congress, and the American people are acutely aware of the costs of running the government, each entity of the government must recognize as incurred the true costs of the retirement benefits promised to its employees.

COST CONTROL

A decade ago the Civil Service Retirement System was the envy of most other U.S. retirement systems, both public and private. A Johnson & Higgins survey on "American Attitudes Toward Pensions and Retirement," conducted in 1978 by Louis Harris & Associates, found that a one-third plurality of employees and retirees felt that plans for government employees offered the highest benefits for the money contributed. Another one-third preferred a plan similar to the old CSRS over all other plans if they had to rely solely on one plan. In comparison, union plans and Social Security received generally negative ratings.

Adverse economic conditions of recent years -- in particular, a sluggish economy and fiscal disarray -- limit the funds the federal government has to spend on the CSRS. Further, inflation has increased the benefits paid. Result -- favorable assessment of the system has been tempered. What previously were seen as generous benefits are now being criticized as overly expensive and excessive. Today, instead of seeking to set national policy which would encourage other plans to conform to the model set by the CSRS, Congress faces the urgent need to bring federal employees' retirement benefits more in line with lower benefits received by the rest of the population.

The gigantic cost of pension benefits is the strongest and most frequently voiced criticism of the Civil Service Retirement System. Whether one relies on government projections, which use low-inflation assumptions for future experience, or independent projections, which may anticipate higher inflation scenarios for the future, the picture is one of costs which have spiraled out of control. At the same time, we hear warnings from many informed observers who say that not enough is going into the system. Obviously, something has to give. If Congress designs the new CSRS to parallel the old system, both with respect to contributions and benefits, then the answer to the "How much?" question on costs will

very quickly be, "Too much!" And the response to the "Who pays the bill?" question will be a defiant "Not me!" from federal employees and taxpayers alike.

DEFINED BENEFIT PLANS

As was described in the first session of this forum, prior to the 1983 Social Security Amendments the CSRS was a contributory defined benefit plan. Defined benefit plans determine an individual's retirement benefit, using factors such as credited service and salary. Aggregate contributions from all sources are then set to be whatever is required under the plan's funding method to provide the promised benefits.

The term "contributory" defined benefit plan indicates that the plan is supported by employee contributions, instead of the employer paying the entire cost. Federal employees shared in the total cost, but the defined benefit character of the plan remained the same: benefits were by formula, independent of the amount of employee contributions or investment results of those contributions. The only relationship between employee contributions and benefits was an indirect one: both were dependent on the salary of the employee. Benefit amounts were geared to the final three years of earnings before retirement, while contributions tracked the salary of each and every year of the employee's service. This difference, plus the fact that the benefit formula brought in other factors unrelated to salary, meant that it was possible for two employees to receive comparable retirement benefits, having made different contributions, although any extreme disparities would be rare.

More important, the retirement benefits bore no relationship to investment experience (either actual or imputed) of accumulated employee contributions. If investment income were lower than anticipated, the government's share of the cost merely increased, but an individual's retirement benefit remained the same. Similarly, if investment experience were favorable, the employee would not receive a higher benefit.

DEFINED CONTRIBUTION PLANS

Aggregate contribution levels needed from all sources will be affected by whether the plan is a defined benefit plan, a defined contribution plan, or some combination of the two. Under a defined contribution plan, the periodic contributions to the pension fund are determined, and the individual's benefit becomes whatever may be provided for by the invested balance which has accumulated at retirement and later.

COMBINATION PLANS

With respect to the question of pension costs, the two approaches of defined benefit and defined contribution can be seen as different ways of dealing with future economic uncertainties. If every single factor affecting future costs and benefits were known, it might be possible to derive a set of formulas which would equate benefit goals with contribution levels. However, no one has this crystal ball. A combination plan using elements from each approach may end up serving as the best vehicle for the new program.

PRE-1984 CSRS PLAN

Under the pre-1984 CSRS plan, federal employees paid 7 percent of their salary into the system. For an employee working 20 years, this employee contribution rate would produce a balance at retirement equal to about 1.75 times the average of the final three years of earnings under typical economic assumptions. That is, if an employee's final average earnings after 20 years were equal to $25,000, then the employee's contributions with interest would have accumulated to an amount on the order of $44,000. With 30 years of service, the balance would be about 3 times final average earnings.

The federal employee with 20 years of service would receive an initial benefit equal to about 37 percent of the final three years average earnings. This retirement benefit would be indexed to rise with the cost of living. Under typical assumptions, the balance, including employee contributions, required to purchase a retirement benefit at this level with the cost of living feature would be on the order of 5.5 to 6.5 times the employee's final average earnings. For the 30-year employee, the benefit level would be about 56 percent of final average earnings, and the balance required to purchase the benefit at retirement would be about 8.5 to 10 times the employee's final average earnings. If the 30-year employee retired with unreduced benefits at age 55, as is allowed under the pre-1984 plan, the balance required at retirement to purchase the benefit would be on the order of 11 to 14 times final average earnings. These figures are very rough estimates and somewhat dependent on salary experience of the employee during the term of employment, inflation following retirement, the lifespan of the employee after retirement, and other factors. The figures tend to bear out the contention of actuaries who calculate the cost of the CSRS at about 35 percent of payroll.

The 35 percent figure reflects the long-term cost of the system. Financing of the system through current contributions need not adhere precisely to this figure. Over the next ten years, contributions into the Civil Service trust funds are projected to be about half a trillion dollars. Of this amount, 13 percent would

represent employee contributions. Another 28 percent would come from investment income earned by fund assets. The remainder would come from government sources.

TRANSITION FOR POST-1983 NEW HIRES

In late 1983, pending formation of the supplemental CSRS for post-83 employees, Congress enacted a temporary measure to preclude the new hires from being compelled to contribute the full 7 percent to the federal system while contributing 5.7 percent towards their retirement benefits under Social Security. The temporary plan calls for the new hires to contribute 1.3 percent to the federal system. At retirement, the portion of their Civil Service pension earned during the transition period would be offset by the amount of Social Security benefits earned during that time. Thus, during the transition contributions and benefits for the new hires are equivalent to the old Civil Service system amounts for most affected individuals, unless the law is changed to simplify administration.

PRE-1984 CONTRIBUTIONS

Contributions to the pre-1984 Civil Service Retirement System came primarily from four sources:

- Employee contributions, for most civil servants at the 7 percent rate; the contributions are mandatory, and represent after-tax dollars;
- Matching 7 percent contributions from the agencies employing the participants;
- Income from the trust fund assets; and
- Appropriations from the Federal Government according to a funding strategy meant to cover increased liabilities and interest on the unfunded liability, which in general represents the difference between the present value of accrued entitlements and trust fund assets on hand.

Alternatives which might be considered for the new supplemental federal plan include voluntary employee contributions, employee contributions from before-tax compensation, and special taxes earmarked for support of the system.

INVESTMENT CONSIDERATIONS

Investment issues are related with cost issues in both conceptual and practical ways. The cost concepts which are at stake can be viewed in terms of the control and use of accumulated funds. Pressures have been building in the past decade in favor of socially "desirable" investment of pension assets. The social investment

debate takes many forms, from objections to investment in what are deemed morally repugnant entities, to support of domestic industry, to freedom to choose alternative investment vehicles such as gold or real estate. If a cost level for the CSRS is fixed so as to accelerate funding for defined benefits, these pressures are likely to play a significant role in the design and operation of the system, particularly given the high visibility of the federal system vis-a-vis other retirement plans. The implications of a large federal pension fund with socially motivated investments reach far beyond the operation of the retirement plan itself, affecting the capital structure of the U.S. economy and influencing policies pursued by private and other public pension programs.

Major groups sharing the cost for the pensions of federal employees have a practical interest in how funds are invested. Taxpayers footing the bill for the government's share of the costs will want to see the funds invested in ways that simultaneously reduce the cost burden and provide financial support for private industries, goals which all too frequently are conflicting. However, even if the federal employee's share of total pension costs is low, a significant portion of accumulated funds could be seen as representing employee contributions. In a contributory defined benefit plan with minimal advance funding of benefits, it is usually deemed inappropriate to use contributions of active employees to pay the benefits of current retirees, as is done under the Social Security system. The employer, the federal government, directs much of its share of current contributions toward a pay-as-you-go financing of current benefits. A greater portion of pension assets than would be indicated by contribution rates themselves can thus be viewed as employee money. If this is the case, employees may want to share in control of the destiny of their retirement savings. The investment policy of the CSRS must reflect all of these considerations, while still remaining impartial in its choice of investments, so that competitive market forces can operate freely. Even the relatively independent procedure of investing in government bonds does not entirely avoid facing such investment issues. The effect on supply and demand of funds in credit markets introduced by so significant a player as the CSRS could be overwhelming in time.

The level of total contributions will directly affect the level of funds, as well as the rate of buildup of the funds. The allocation of costs between various sources can decide the parties to be viewed as those to whom the trustees of the fund are responsible. Thus, as we have briefly examined, the level of costs can play a role in matters affecting investment decisions. Year-to-year and ultimate results of fund investments can also have a very significant practical effect in the other direction: investments will affect the required level of contributions. Investment income is an important source of cash flow into the pension fund. For private plans, in particular, accumulation of a large pension fund will have a primary

purpose that tends to overshadow consideration of the fund's effect on costs. The fund provides security to plan participants, an assurance that promised benefits will be paid regardless of continuance of their employer. Public plans, and specifically the federal retirement system, do not face the same degree of uncertainty about future financial failure. Although there are practical limits to the cost burdens which can be passed to the taxpayer, federal employees can be assured that their employer and their pension will be there when they retire.

FUNDING POLICY

Security aspects of a pension fund are, however, only a part of the picture. More recently, private and public plans alike have become increasingly conscious of the role the fund plays in directing and stabilizing the costs of the plan. One role of the fund in cost control is relatively obvious. In general, the larger the fund, the lower will be current required contributions. This should be a consideration in deciding the future stream of contributions to be paid into the system. Contributions which fail to build up a decent-sized fund will usually have to ultimately increase, to replace costs which otherwise might have been paid for by income from the fund.

Funding policy, the contribution rates, and the resulting size of the fund clearly affect future cost patterns according to expected income from the fund. These considerations are critical in designing the plan not only with respect to the level of costs, but dealing with the variability of future costs as well. Employee contributions should be at as stable a rate of compensation as possible over successive generations, in order to ensure equity of the system from one generation to the next. If total costs have inherent instabilities, the fluctuation in year-to-year costs falls on the shoulders of the federal government, introducing aberrations into the federal budget. The possibility of such fluctuations or the chance that cost trends will exhibit future tendencies above or below set goals can only be seen by conducting a projection of future federal workforce demographics, contributions into the system, and asset experience, using a dynamic range of realistic assumptions regarding the future.

TOTAL COMPENSATION

Retirement benefits under the pre-1984 CSRS have been criticized for lack of consistency with broader employment and compensation policies of the federal government. Generous retirement benefits can lure the high-salaried career civil servant into an early retirement, particularly since the compensation for higher paid

federal employees is often low relative to employment in the private sector.

The relationship of the retirement program to overall compensation policy obviously must examine costs as well as benefits. The balance sought between pre-retirement compensation, net of taxes and employee contributions to Social Security and the CSRS, and after-tax retirement income must be equitable between the various salary grades in the Civil Service. Currently, the system may provide the higher salaried federal employee a better standard of living after retirement than before. For many such employees, this presents an irresistible incentive to retire prematurely or find other work. Trying to correct the balance by increasing the contributions or decreasing the benefit levels for the higher paid federal employee could, on the other hand, negatively affect the hiring of quality employees. By contrast, clerical-level federal employees are given current compensation on a more even scale relative to comparable private sector employees. While CSRS pensions have been generous for them as well, the incentive to retire early is not as great as for the higher paid civil servant.

SOCIAL SECURITY INTEGRATION

Evening out the incentives to retire by shifting some of the cost burden to employee contributions from lower salary grades would be politically impossible and economically counterproductive. At the very least, however, the situation generated by the new CSRS should not be made worse than the status quo present under the old system. Since Social Security benefits replace a greater percentage of pre-retirement income for the lower salaried employee than for the higher paid, an overall balance strongly suggests the need to develop an integrated approach by designing the new system as a supplement to Social Security coverage.

FOCUS OF STUDIES

In order to settle on how much the new system should cost, Congress must first decide whether the current effort to design a supplemental plan for new federal hires is to isolate attention solely on the pension system itself, or encompass the broader issues related to total compensation for the federal workforce. Several commentators have observed the complexity of broadening the scope of the project, advising a limited look at only the retirement system. If Congress follows this course, it runs the risk of implementing a plan which would be inconsistent with broader compensation policies. Subsequent modifications would then have to adjust compensation to reflect aberrations in retirement policy or face further changes in the retirement system.

Congress should determine a number of conceptual issues before proceeding with the particulars of a new system:

- Are retirement benefits to be viewed as benefits of employment above and beyond the employee's compensation, or as an integral part of a pool of resources?
- Is the emphasis to be on the individual, providing for personal characteristics such as family and health differences with little or no extra expense laid upon the employee for covering such differences; or will the emphasis be on the position, with a particular level of compensation and subsequent retirement allotment to be then allocated as the individual chooses to cover differences in personal circumstance?
- How shall the ability to pay for the cost of pensions affect the design of the system?

FLEXIBILITY

In the private sector, the emphasis is increasingly one of a flexible view of compensation. The employer's and employee's ability to pay for benefits set a floor and a ceiling on total compensation. The resulting pool of financial resources is made available to tailor to individual needs and expectations, allowing choice and limiting inequities. The flexible compensation approaches available under Section 125 of the Internal Revenue Code, while currently jeopardized by adverse conclusions of the Internal Revenue Service, represent the direction of private industry in this regard.

BENEFITS VERSUS COSTS

Next, Congress needs to decide on the overall approach to the problem of balancing benefits and contributions:

- Should costs first be determined, by comparison to the costs of comparable workforces in the private and public sectors and consideration of federal budget goals, then have benefits geared to the calculated costs? or
- Should benefits be determined first, based on a determination of what would constitute adequate retirement protection and similarly comparing benefit levels and features to those offered employees in other plans, with costs the amounts necessary to provide those benefits?

OUT WITH THE OLD?

The degree to which the new system will reflect the goals and structure of the old federal system will affect decisions here. Are

benefits to be as generous as they have been in the past? If so, what have we gained! Are particular features which have been targeted as costly -- most notably, unreduced early retirement allowances and inflation protection -- to be continued? In the worst case where benefits and features are to be comparable to the past system, would the allocation of costs be shifted, with increases in employee contribution rates or inflows from other sources, such as earmarked taxes?

Congress must then address group and individual equities within the system. Are different branches of the Civil Service to be provided uniform protection? How are the needs of older employees to be balanced with those of younger employees? short service employees with career employees? How will the tilt in Social Security protection toward lower salaried employees be reflected in Civil Service Retirement System contributions and benefits?

EMPLOYEE CONTRIBUTIONS

The nature of employee contributions should be reviewed. Might voluntary employee contributions be encouraged, to help provide an add-on layer of retirement protection? Should a portion or all of employee contributions be on a before-tax basis?

GENERAL CONSIDERATIONS

The program fashioned out of this review process should then submit itself to a broad view relative to funding of the system. Are contribution patterns reasonably stable? How dependent are costs on the health of the national economy? What funding method should be employed to determine the government's contribution to the system, and what accounting basis should be used to charge the different government agencies with their share of the costs? How are assets to be invested, and who should control these investment decisions? Last, but certainly not least, what implications are there for national pension policy in other public sectors and in the private sector deriving from the design of the new system?

ADMINISTRATIVE ISSUES

presented by

CHARLES C. THARP

PENSION BENEFIT GUARANTY CORPORATION

PENSION BENEFIT GUARANTY CORPORATION

Statutory Basis and Purpose

The Pension Benefit Guaranty Corporation (PBGC) was established under Title IV of the Employee Retirement Income Security Act of 1974 (ERISA) to protect the retirement income of plan participants and their beneficiaries covered under private sector, defined benefit pension plans. PBGC was given certain statutory purposes, which are:

> To encourage the continuation and maintenance of voluntary pension plans for the benefit of their participants;
>
> To provide for the timely and uninterrupted payment of pension benefits under plans to which Title IV applies; and
>
> To maintain insurance premiums at the lowest level consistent with carrying out the Corporation's obligations under Title IV.

The Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) amended Title IV with respect to multiemployer plans and, among other things, stated that it is desirable --

> To increase the likelihood of protecting plan participants against benefit losses, and provide reasonable protection for participants of financially distressed multiemployer plans;

To replace termination insurance with an insolvency based program that will enhance the financial soundness of multiemployer plans, emphasizing plan continuation, and contain program costs within reaponsble limits;
To alleviate certain problems which tend to discourage maintenance and growth of multiemployer plans;
To provide a financially self-sufficient program for the guarantee of employee benefits under multiemployer plans.

Single-Employer Program

Overview: PBGC insures the payment of benefits guaranteed by law in the event a covered single-employer pension plan terminates. Under our voluntary pension system, a plan sponsor may at any time decide to terminate a pension plan.

A plan administrator who terminates a single-employer defined benefit plan must notify PBGC prior to the termination. The Corporation determines if the plan's assets are sufficient to pay the benefits guaranteed by law. If the plan's assets are sufficient, PBGC authorizes the distribution of assets pursuant to plan provisions and applicable requirements of law.

If plan assets are insufficient, PBGC becomes trustee in order to assure that plan participants are paid their guaranteed benefits as mandated by law. In becoming trustee, the PBGC takes over plan assets and assumes the liabilities for guaranteed benefits. Employers that terminate plans with insufficient assets to provide all guaranteed benefits are

liable to PBGC for the amount of the plan asset insufficiency, up to 30% of the employer's net worth.

PBGC must accept all claims made against it, no matter what the financial status of the plan or the employer and without regard to the payment of PBGC premiums.

Program Scope: The single-employer program covers nearly 29 million participants in approximately 105,000 defined benefit pension plans.

Operating Statistics: Between the enactment of ERISA in 1974 and the end of FY 1983, PBGC has received about 50,200 notices of plan termination. About 98% of such terminated plans have sufficient assets to pay all guaranteed benefits and are authorized to distribute assets. At the end of FY 1983, PBGC was trustee of about 900 plans and was responsible for the payment of benefits to about 116,000 participants. About 60,000 individuals were in pay status receiving a total of $155 million in annual benefits.

Program Financing: PBGC collects a mandatory annual premium of $2.60 per participant from each covered single-employer plan. Premium revenues, together with payments collected under the employer liability provisions of the law, assets of plans under PBGC trusteeship, and investment income on PBGC's assets, are used to discharge PBGC's liabilities under the single-employer program. PBGC does not receive funding from Federal taxation, nor are claims against the insurance program obligations of the U.S. Government. PBGC premium increases and changes in the premium basis must be approved by the Congress.

The PBGC has had a policy, since its inception, of funding its program on a current basis, so that termination claims (net of allocable plan assets and employer liability) incurred in a year plus administrative expenses for the year are fully funded by premium revenues and investment income for that year. One difficulty in projecting PBGC's claims is that they are attributable in large part to a relatively small number of very large insufficient terminations. The number and size of large claims have grown throughout the insurance program's history. Past claims experience thus far has been the most statistically reliable basis for projecting future claims.

In FY 1982 the PBGC experienced extremely high claims -- $260 million in losses. Claims in FY 1983 were also higher than projected -- $175 million in losses. The PBGC is requesting the Congress to increase the single-employer premium rate to $7 per participant per year in order to fund its accumulated $520 million deficit and to cover future claims as they are incurred.

In addition to the requested premium increase, PBGC is seeking Congressional approval of proposed legislative amendments to the single-employer program. These amendments are intended to minimize program abuse, encourage the maintenance and continuation of voluntary defined benefit pension plans, and assure the timely and uninterrupted payment of pension benefits to participants and beneficiaries.

Multiemployer Program

Overview: In September, 1980, the Congress amended ERISA to establish a plan insolvency insurance program. Under this program, an employer is assessed liability when it completely or partially withdraws from a multiemployer plan. (Under prior law, an employer could withdraw without such liability. However, if the plan terminated, PBGC guaranteed certain benefits and employers that contributed within the five years preceding termination were liable to PBGC for a proportional share of any unfunded guaranteed benefits.) Under the 1980 amendments, multiemployer plans are responsible for assessing and collecting withdrawal liability and withdrawal liability collections become assets of the plan. PBGC provides financial assistance in the form of loans to multiemployer plans that are not able to pay the benefits that are guaranteed by ERISA, as amended, in order to insure that participants receive those guaranteed benefits.

Program Scope: The multiemployer program covers about 9 million participants in approximately 2,500 defined benefit multiemployer plans.

Program Financing: PBGC collects an annual premium from each covered plan. The current premium rate of $1.40 per participant was set in 1980. The premium rate is scheduled to increase over a nine-year period to $2.60. The PBGC Board of Directors may escalate the multiemployer premium increases if certain conditions exist; however, the maximum premium which may be established without Congressional approval is $2.60 per participant.

Operating Statistics: PBGC is currently providing financial assistance to two multiemployer plans and has set aside a reserve to cover losses from five additional plans. Payments net of repayments through FY 1983 totalled $940,000.

TABLE I. SINGLE-EMPLOYER TERMINATION PROCESSING

	FY 84[2] (Projected)	FY 83[1]	FY 82	FY 81	FY 80	FY 79	FY 78	FY 77	FY 76	FY 75
Termination notices received	5,700	6,730	6,003	4,949	3,933	4,810	5,158	7,202	8,932	2,470
Sufficient non-trusteeship cases processed	4,400	4,923	4,272	4,195	3,465	5,484	7,420	4,510	1,533	0
Plans in PBGC trusteeship	994	894	780	659	514	389	266	145	48	0

[1] Data are preliminary and may be revised

[2] Based upon preliminary projections

ADMINISTRATIVE ISSUES IMPACTING THE OPERATION OF PRIVATE RETIREMENT PLANS

PRESENTED TO THE

SENATE GOVERNMENTAL AFFAIRS COMMITTEE

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ADMINISTRATIVE ISSUES

Basically, administrative issues impacting the operation of any private retirement plan involve one of the three following areas:

1) Plan design

2) Plan installation

3) Plan administration

Any other function of plan operation, such as plan communication, calculation of specific benefits, etc. are sub-sets of these basic areas. Additionally, an ongoing plan will continue to be subject to redesign based upon changing business, regulatory and legislative circumstances, and from time to time plans will be re-installed to reflect redesign changes. Finally, although the essence of administration never changes, the substance changes often due to the business, regulatory, and legislative environment within which private plans operate.

I. Plan Design

Prior presentations have dealt with the issue of plan design, and not much time will be spent on it in this paper. Basically, the plan design is developed by an employer and his advisors in an effort to provide employees and company with the delivery of retirement income benefits consistent with the goals at hand. Plan design should be a dynamic rather than a static function. It should be carried on year-in and year-out among the plan sponsor, his advisors, and perhaps employee group to reflect the dynamic nature of the business, regulatory, and legislative environment within which such plans operate. To a direct extent, plan design impacts the installation and particularly the administrative operation of the plan. For example, if a company maintained a profit sharing plan, such plan may provide for only one mode of payment and thus may be able to forego much of the administrative complexity associated with a different type of plan, for example, a defined

benefit plan. Thus, it is important that the "right" plan be implemented for any particular company. What the right plan may be depends upon stated objectives. The important point is that proper plan design should anticipate future administrative contingencies.

II. Plan Installation

Once an appropriate plan design has been arrived at, the plan has to be installed. The installation process requires preparation of the following material and submission to the IRS, Department of Labor or Pension Benefit Guaranty Corporation (PBGC) of appropriate information:

A) Plan Document and Trust Agreement (IRS)

B) Summary Plan Description (DOL)

C) Preparation of Internal Revenue Service 5300 Series forms for submission to receive plan approval (IRS)

D) Preparation of Notice to Interested Parties (IRS)

E) If a defined benefit plan, preparation of Pension Benefit Guaranty Corporation insurance premium payment form (PBGC)

F) Preparation of additional employee communication material, if desired.

A. Plan Document and Trust Agreement

The Plan Document and Trust Agreement detail the plan provisions agreed to by the plan sponsor. The plan sets out how the plan is to operate in practice, and who is to perform certain functions on behalf of the plan participants. For example, the plan will designate a plan trustee, a plan administrator, and may designate an investment manager, a technical and clerical administrator, or other persons to assist in the administration of the plan. The plan sets forth the eligibility requirements, effective date, benefit formula, retirement age, vesting schedule, forms of benefit

payment, joint and survivor language, ancillary benefits, authorized investment policy, and a myriad of other details associated with the continuing operation of the plan.

B. Summary Plan Description (SPD)

A Summary Plan Description (SPD) is required by the Department of Labor to be distributed to all persons who become eligibile to participate under the terms of the plan. The SPD is meant to be understood by the average plan participant, and it is required to be updated periodically to reflect any changes made in the plan. Such changes in the SPD are called Summaries of Material Modification (SMM), and reflect any amendments made to the plan document and trust agreement. SPDs are often set up in a question and answer format to enable participants to get a handle on what the retirement plan will deliver in the form of benefits. SPDs also contain sections relating to an employee's rights to receive benefit information from the plan sponsor.

C. Internal Revenue Service 5500 Series Forms

Depending upon the type of plan installed, a 5300 or 5301 form would be filed with the IRS in conjunction with the plan document and trust agreement and notice to interested parties to obtain advance approval of the plan's provisions and to qualify the plan sponsor for deductions for contributions made to the plan. The 5300 series forms are submitted with all plan installation or reinstallation materials, but a different form can be submitted with amendments where the plan sponsor is seeking approval of an amendment. Such forms set out the basic plan provisions for review by the IRS Employee Plans staff, and based upon the IRS' review, the plan either will or will not be "qualified". A plan is deemed to be "qualified" when it meets statutory requirements related to the items defined in II.A. Qualification of the plan is essential to ensure deductibility of employer contributions.

D. Notice to Interested Parties

This is a notice which must be posted at an employer's place of business and which announces to employees the implementation of a plan or the amendment of an existing plan. The notice provides employees an

opportunity to make comments to the IRS District Director about the establishment of the plan or any amendments thereto.

E. PBGC-1 Form

The PBGC requires filing of its insurance payment declaration form by all defined benefit plans not exempted under the statute. Basically, all non-multiemployer defined benefit pension plans not exempt under ERISA must pay a premium equal to $2.60 per participant per year for PBGC insurance coverage. Multiemployer plans pay a lesser premium, graded to $2.60 over a period of years.

F. Other Employee Communication Material

Often a plan sponsor will desire to communicate a plan's implementation in a more formal manner than simply by distributing Summary Plan Descriptions. Thus, the employer may authorize development of a slide presentation or other employee communication materials to communicate the implementation or amendment of an existing program. Communication of this type can range from colorful handout pieces, to slide shows, to video tape presentations, and the form and method of employee communication will often be dictated by the size and/or complexity of the plan being installed or changed. Employee communication services can be very expensive, and for the most part small plans will provide communication on a much more informal basis than large plans.

III. Plan Administration

Although plan administration is a day in-day out process, which should be dynamic rather than static, administration involves a number of basic functions, as follow:

A) Determination of annual eligibility for plan participation based upon an employee's age, hire date, hours of service, job classification, etc. and enrollment of eligible participants.

B) Determination of termination of employment, based on plan provisions.

C) Determination of vested percentage in benefit accrued to date of termination of employment.

D) Calculation of available benefits under the plan according to the plan's benefit formula.

E) Determination of forms of benefit payment and time when payment can commence. Proper benefit administration is essential to a smooth-running plan.

F) Determination of retirement status of participant and whether such participant is eligible for normal or early retirement or deferred retirement.

G) Determination of whether or not a participant is eligible to receive benefits in advance of any stated early retirement age.

H) Distribution of any participation, beneficiary, early survivor annuity, or other participant election forms requiring a decision on the part of a participant.

I) Annual plan renewal process of data collection and asset reconciliation to "balance the books" for the plan year.

In addition to these basic administrative functions to be performed by the Plan Administrator[1] or his delegate, as determined by the language in the plan document, the Plan Administrator must be certain to comply with all legislation and regulations in administering the plan. For example, the Plan Administrator must annually file the plan Annual Report with the IRS which details the basic operational and financial aspects of the plan. The form on which this information is provided is the Form 5500 plus attachments (e.g., 5500 Schedule A -- insurance information; Schedule B -- actuarial information; SSA -- Social Security deferred vested benefit information; etc.).

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(1) Plan Administrator is defined in ERISA Section 101.

The Plan Administrator is required under law to distribute to all plan participants a Summary Annual Report which purports to summarize the plan's financial activity for the year. Such report is generally considered to be of little value to participants, but under the law it is required to be distributed to plan participants.

Employers must provide plan participants a statement of vested benefits if requested by the plan participant. It is routine practice for single employer plans to provide a statement of a participant's account or projected benefits on an annual basis to such participant. Such statement would generally show the participant's name, date of birth, date of employment, projected retirement age and estimated benefits under the plan. Single employer plans are more easily able to produce statements of benefits than multiemployer plans, which often are subject to more complex recordkeeping. In the case of multiemployer plans, administrative offices are established to aid participants and beneficiaries in determining any retirement or pre-retirement benefits to which they might become entitled. The same is also true of the administration of single employer plans.

There are various timing requirements when certain information must be distributed to plan participants and beneficiaries. Plan Administrators must be careful to comply with legal requirements in order to avoid not only confusion on the part of participants and beneficiaries but also fines or penalties which might be levied by the IRS, Labor Department, or PBGC in the event forms and information are not filed or disseminated on a timely basis.

IV. Who Are The Players In The Administrative Process?

A. Plan Sponsor

(i) Personnel or human relations department.

(ii) Committee to review daily operational aspects of the plan.

(iii) Other departments (e.g., legal, accounting, payroll, etc.).

(iv) Named Plan Administrator (usually).

(v) May delegate administrative functions to a Technical and Clerical Administrator.

B. Plan Trustee

Individual or Corporate Trustee determines prudence of plan's investment policy and assists in investment record-keeping.

C. Legal Counsel

Prepares installation materials, amendments, other legal requirements, either in-house or outside counsel.

D. Accountant

Either in-house or outside for routine plan accounting functions, however, outside "independent" accountant opinion necessary for auditing a plan's Annual Report under ERISA.

E. Actuary

For Defined Benefit Plans, prepares annual report valuing plan's benefits for contribution purposes.

Comments on Presentation by Kenneth K. Keene to the May 30, 1984 Senate Governmental Affairs Committee Policy Forum on Civil Service Retirement

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Date: August 10, 1984

Comments on Presentation by Kenneth K. Keene

These comments on the May 30, 1984 presentation by Kenneth Keene of Johnson and Higgins are being submitted to indicate for the record several major problems with Mr. Keene's remarks. First, he violated the purpose of the forum by presenting a specific approach to the design of a New Civil Service Retirement (CSR) system. Second, he focussed on the current CSR system in discussing pension costs, although the forum series was intended to stay away from issues of the current system and dwell instead on how to design a new plan. Third, the cost data presented on CSR were quite misleading, to the disadvantage of CSR compared to private plans, and were not substantiated by source references at the time they were presented. It is the misleading nature of the cost comparison that I will address in these remarks.

Mr. Keene's basic charts used in his talk showed data on pension costs per employee for Fortune 500 firms, for state/local government plans, and for CSR for 1978 through 1982. These data cannot be used for cost comparison purposes unless extensive adjustments are made. The private sector data exclude the costs of both Social Security and supplementary retirement plans and thus are not even close to being representative of the full cost

of retirement for private-sector employees. The state/local data include some plans that supplement Social Security and some that are full retirement plans. These costs, therefore, more closely represent full retirement costs but fall short of that level to some unknown degree. The CSR cost data, on the other hand, represent a single system that is a full retirement program for federal employees.

The trends in costs from 1978 to 1982 shown in Mr. Keene's charts are also misleading. The data show an increase in the CSR cost per employee of 70 percent over that period compared to 34 percent for the Fortune 500 plans. One would expect a somewhat faster increase for CSR than for the private plans over those years due to the CSR COLA and the high rate of inflation for the first part of that period. However, Congress did act to slow the growth of CSR benefits on several occasions in those years. Thus, the gross disparity in cost increases does not stem from a rapid liberalization of CSR as the reader might be led to believe. A more likely explanation for the growth in CSR's cost per employee is the fact that the large numbers of federal workers hired during World War II became eligible for retirement in the late 1970's while the current federal workforce was declining slightly. This pattern of hiring and retiring is quite different from that in the private sector, a point that readers of Mr. Keene's materials should understand. Furthermore, because CSR is funded on a pay-as-you-go basis, such irregular patterns in workforce size over time will quite naturally cause unusual fluctuations in a statistic such as Mr. Keene uses.

During his presentation, Mr. Keene described the present CSR rules entitling employees with 30 years of service to retire at age 55 with full benefits as being "incredibly liberal" relative to private sector practice. This statement is also quite misleading. It is correct that most private plans apply some reduction factor to benefits drawn at age 55 whereas CSR does not. However, the recent GAO review of private plan practices shows that many of these plans are more generous than CSR in their service requirements for age-55 retirement. The typical private plan offering retirement at age 55 generally permits retirement with far fewer than 30 years of service. Thus, early retirement under CSR is more generous than under the typical private sector plan in one respect but less generous in another.

In discussing CSR's full COLA, Mr. Keene asserts that the private sector "cannot afford" full COLAs. Some firms clearly can afford them; they simply have not chosen to use their plan funds in this way. It is important that readers of this forum's record understand why private plans have not offered full COLAs: (1) Social Security, which is indexed, accounts for most of the retirement income of the lower-paid workers; (2) supplemental retirement plans offer an additional layer of financial protection in the private sector that is not available to federal workers; (3) wage replacement rates from all benefits at retirement are often much higher for private employees than the 56 percent available to the 30-year worker under CSR; (4) private firms place more money into other types of financial protection such as health and life insurance than does the Federal

Government; and (5) hyperinflation does pose an unacceptable short-term risk to an individual private plan, but it is a risk to the Federal Government only if prolonged and accompanied by economic recession.

Congress will certainly want to make a careful comparison of federal vs. private-sector benefit costs as it develops a new CSR plan. The data presented by Mr. Keene do not offer a useful basis from which to draw such comparisons.